SYLVANIA

SERVICE MANUAL

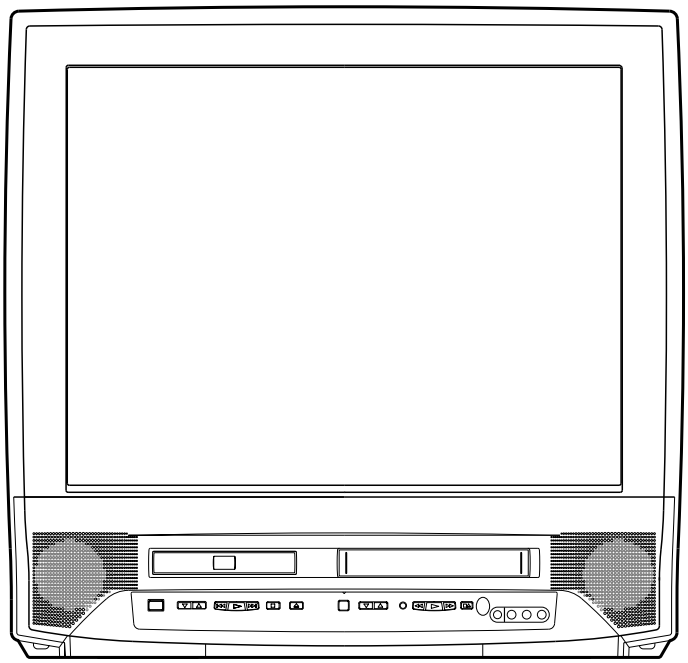
Sec. 1: Main Section
- Specifications
- Preparation for Servicing
- Adjustment Procedures
- Schematic Diagrams
- CBA' s

Sec. 2: Deck Mechanism Section
- Standard Maintenance
- Alignment for Mechanism
- Disassembly/Assembly of Mechanism
- Alignment Procedures of Mechanism

Sec. 3: Exploded Views and Parts List Section
- Exploded Views
- Parts List

27" COLOR TV/DVD/VCR

6727DB



VHS

IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Funai Equipment. The service procedures recommended by Funai and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Funai could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Funai has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Funai must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

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MAIN SECTION

27" COLOR TV/DVD/VCR

6727DB

Sec. 1: Main Section

- **Specifications**
- **Preparation for Servicing**
- **Adjustment Procedures**
- **Schematic Diagrams**
- **CBA' s**

TABLE OF CONTENTS

Specifications 1-1-1
Laser Beam Safety Precautions 1-2-1
Important Safety Precautions..... 1-3-1
Standard Notes For Servicing..... 1-4-1
Preparation For Servicing 1-5-1
Operating Controls And Functions..... 1-6-1
Cabinet Disassembly Instructions..... 1-7-1
Electrical Adjustments Instructions 1-8-1
Block Diagrams..... 1-9-1
Schematic Diagrams / CBA's and Test Points 1-10-1
Waveforms.....1-11-1
Wiring Diagram 1-12-1
System Control Timing Charts 1-13-1
IC Pin Function Descriptions 1-14-1
Lead Identifications..... 1-15-1

SPECIFICATIONS

< TV Section >

✶ Mode ---------SP mode unless otherwise specified

✶ Test input terminal

<Except Tuner> ----------Video input (1Vp-p)
Audio input (-10dB)

<Tuner> ----------Ant. input (80dBμV) Video: 87.5%
Audio: 25kHz dev (1kHz Sin)

<DEFLECTION>

Description	Condition	Unit	Nominal	Limit
1. Over Scan	—	%	90	—
2. Linearity	Horizontal	%	—	15
	Vertical	%	—	10
3. High Voltage	—	kV	29	—

<VIDEO & CHROMA>

Description	Condition	Unit	Nominal	Limit
1. Misconvergence	Center	m/m	—	0.4
	Corner	m/m	—	2.2
	Side	m/m	—	1.7
2. Tint Control Range	—	deg	±30	—
3. Contrast Control Range	—	dB	6	2
4. Brightness	APL 100%	ft-L	25	18
5. Color Temperature	—	K	9200	—

<VCR>

Description	Condition	Unit	Nominal	Limit
1. Horizontal Resolution	(R/P)	Line	230	200
2. Jitter (Low)	(R/P)	μS	0.05	0.2
3. S/N Chroma AM (SP)	(R/P)	dB	38	33
PM (SP)	(R/P)	dB	36	33
4. Wow & Flutter (RMS)	(R/P)	%	0.25	0.5

<TUNER>

Description	Condition	Unit	Nominal	Limit
1. Video S/N	—	dB	45	40
2. Audio S/N (W/LPF)	—	dB	43	40
3. Audio Output Power at Speaker	—	W	1	0.8

Note: Nominal specifications represent the design specifications. All units should be able to approximate these. Some will exceed and some may drop slightly below these specifications. Limit specifications represent the absolute worst condition that still might be considered acceptable. In no case should a unit fail to meet limit specifications.

< DVD Section >

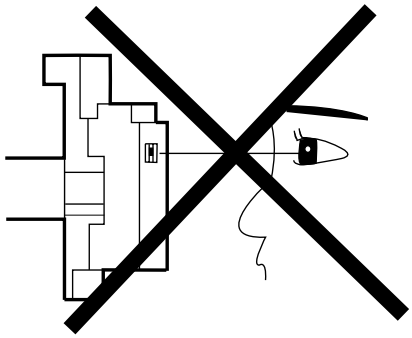
Description	Condition	Unit	Nominal	Limit
1. Horizontal Resolution	(TDV-540 TIT2 CHP16)	LINE	350	330
2. VIDEO S/N	(TDV-540 TIT2 CHP6)	dB	68	63
3. S/N Chroma AM S/N Chroma PM	(TDV-540 TIT2 CHP17)	dB	65 65	60 60
4. Audio Distortion	(PTD1-NOR TIT1 CHP1)	%	0.03	0.07
5. Audio Frequency Response	(PTD1-NOR TIT1 CHP5--10)			
20Hz		dB	0	+2 / -3
100Hz		dB	0	+2 / -3
20kHz		dB	0	+2 / -3
10kHz		dB	0	+2 / -3
6. Audio S/N	(PTD1-NOR TIT1 CHP1--2)	dB	100	94

NOTES:

1. All Items are measured without pre-emphasis unless otherwise specified.
2. Power supply : AC120 V 60 Hz
3. Load imp. : 100 k ohm
4. Room ambient : +25 °C

LASER BEAM SAFETY PRECAUTIONS

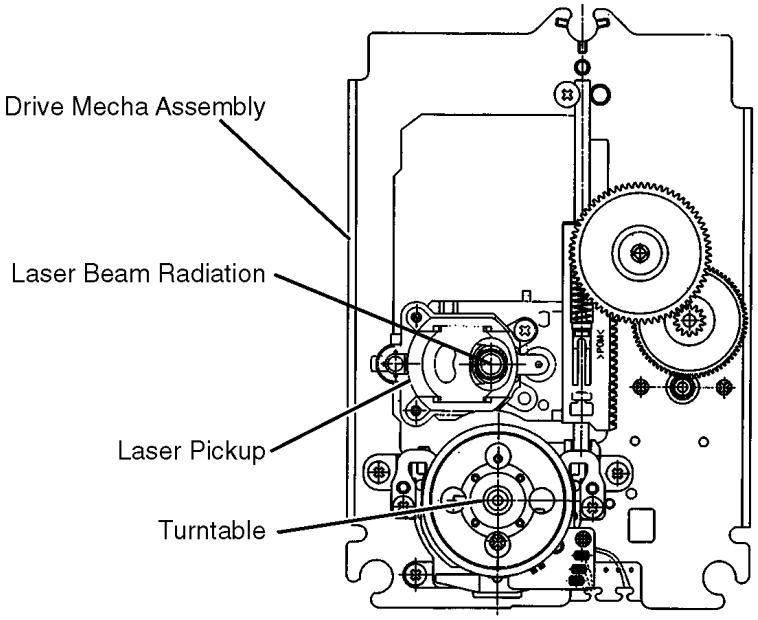
This DVD player uses a pickup that emits a laser beam.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

Caution: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.



CAUTION
LASER RADIATION
WHEN OPEN. DO NOT
STARE INTO BEAM.

Location: Inside Top of DVD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, our products are strictly inspected for recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Safety Precautions for TV Circuit

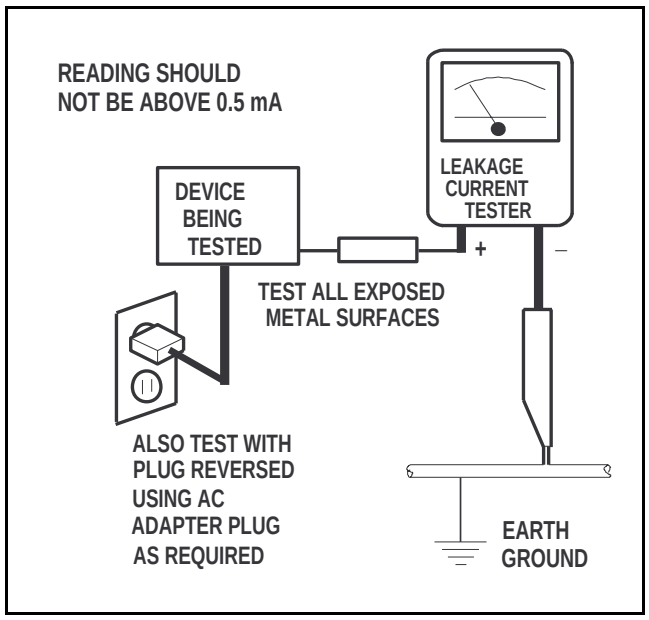
1. **Before returning an instrument to the customer,** always make a safety check of the entire instrument, including, but not limited to, the following items:

a. Be sure that no built-in protective devices are defective and have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the picture tube and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.

c. Antenna Cold Check - With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohm or greater than 5.2 megohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.

d. Leakage Current Hot Check - With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milli-ampere. Reverse the instrument power cord plug in the outlet and repeat the test.



ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

e. X-Radiation and High Voltage Limits - Because the picture tube is the primary potential source of X-radiation in solid-state TV receivers, it is specially constructed to prohibit X-radiation emissions. For continued X-radiation protection, the replacement picture tube must be the same type as the original. Also, because the picture tube shields and mounting hardware perform an X-radiation protection function, they must be correctly in place. High voltage must be measured each time servicing

is performed that involves B+, horizontal deflection or high voltage. Correct operation of the X-radiation protection circuits also must be reconfirmed each time they are serviced. (X-radiation protection circuits also may be called "horizontal disable" or "hold down.") Read and apply the high voltage limits and, if the chassis is so equipped, the X-radiation protection circuit specifications given on instrument labels and in the Product Safety & X-Radiation Warning note on the service data chassis schematic. High voltage is maintained within specified limits by close tolerance safety-related components/adjustments in the high-voltage circuit. If high voltage exceeds specified limits, check each component specified on the chassis schematic and take corrective action.

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.

3. Design Alteration Warning - Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.

4. Picture Tube Implosion Protection Warning - The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; because of potential hazard, do not try to remove such "permanently attached" yokes from the picture tube.

5. Hot Chassis Warning -

a. Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and may be safety-serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter, measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground.

b. Some TV receiver chassis normally have 85V AC(RMS) between chassis and earth ground regardless of the AC plug polarity. This chassis can be safety-serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection.

c. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not is- olated from the AC power line. The two ground systems are electrically separated by insulation material that must not be defeated or altered.

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: a. near sharp edges, b. near thermally hot parts-be sure that leads and components do not touch thermally hot parts, c. the AC supply, d. high voltage, and e. antenna wiring. Always inspect in all areas for pinched, out of place, or frayed wiring. Check AC power cord for damage.

7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

8. Product Safety Notice - Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc.. Parts that have special safety characteristics are identified by a (⚠) on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The Product's Safety is under review continu-ously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are strictly inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

A. Parts identified by the (⚠) symbol are critical for safety.

Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.

Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:

1) Wires covered with PVC tubing

2) Double insulated wires

3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:

1) Insulation Tape

2) PVC tubing

3) Spacers

4) Insulators for transistors.

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

G. Check that replaced wires do not contact sharp edged or pointed parts.

H. When a power cord has been replaced, check that 5~6 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Be careful that foreign objects (screws, solder droplets. etc.) do not remain inside the set.

K. Crimp type wire connector

When replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, in order to prevent shock hazards, perform carefully and precisely the following steps.

Replacement procedure

1) Remove the old connector by cutting the wires at a point close to the connector.

Important: Do not re-use a connector (discard it).

2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

4) Use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

L. When connecting or disconnecting the TV/DVD connectors, first, disconnect the AC plug from AC supply socket.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1 : Ratings for selected area

AC Line Voltage	Region	Clearance Distance (d) (d')
110 to 130 V	USA or CANADA	≥ 3.2 mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

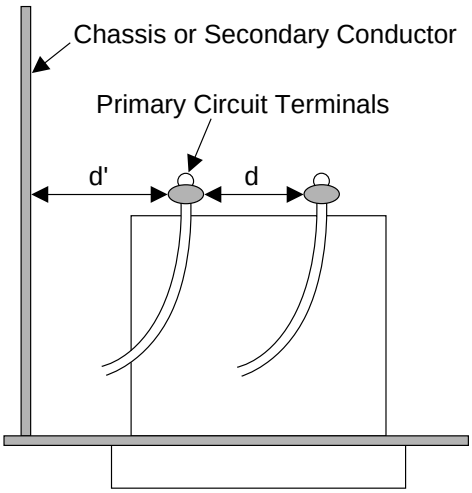


Fig. 1

2. Leakage Current Test

Confirm specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method : (Power ON)

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig. 2 and following table.

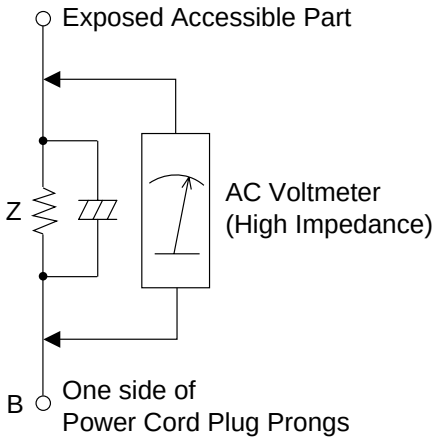


Fig. 2

Table 2 : Leakage current ratings for selected areas

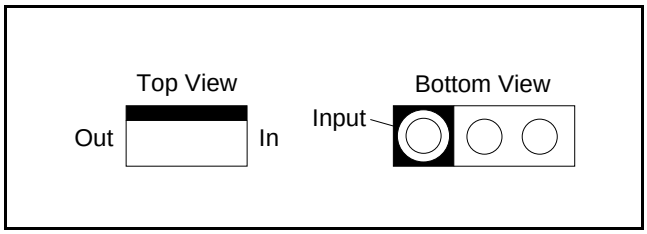
AC Line Voltage	Region	Load Z	Leakage Current (i)	Earth Ground (B) to:
110 to 130 V	USA or CANADA	0.15μF CAP. & 1.5kΩ RES. connected in parallel	i≤0.5mA rms	Exposed accessible parts

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

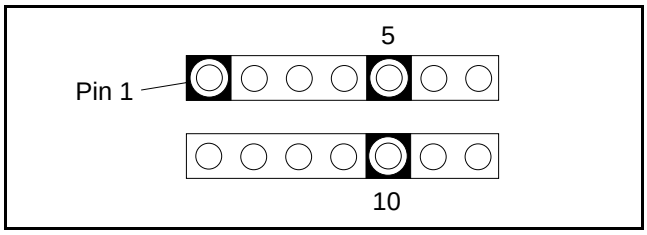
STANDARD NOTES FOR SERVICING

Circuit Board Indications

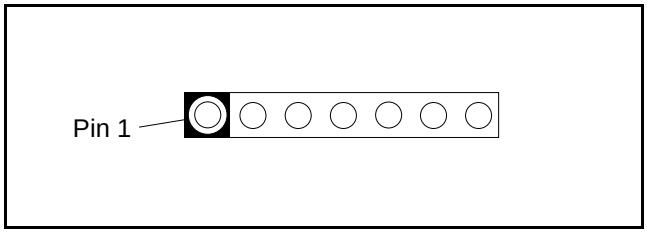
1. The output pin of the 3 pin Regulator ICs is indicated as shown:



2. For other ICs, pin 1 and every 5th pin is indicated as shown:

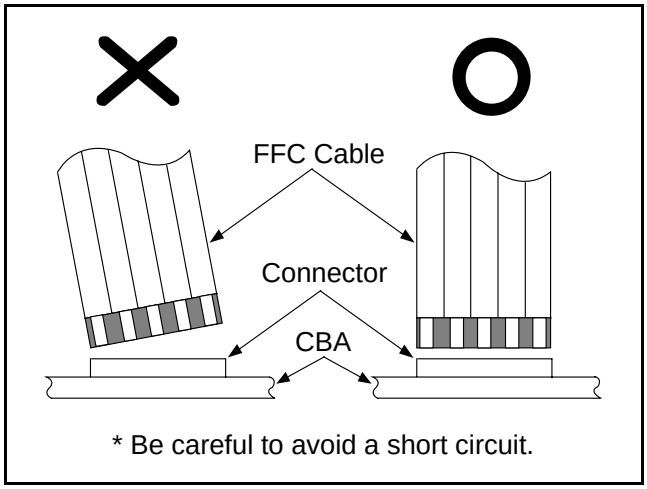


3. The 1st pin of every pin connector are indicated as shown:



Instructions for Connectors

1. When you connect or disconnect FFC cable (connector), be sure to disconnect the AC cord.
2. FFC cable (connector) should be inserted parallel into the connector, not at an angle.

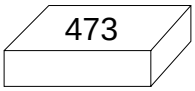


[CBA= Circuit Board Assembly]

How to Read the Values of the Rectangular Type Chip Components

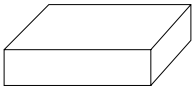
Example:

(a) Resistor



= 473 = 47 [kΩ] (Top View)

(b) Capacitor



= Not Shown (Top View)

Caution:

Once chip parts (Resistors, Capacitors, Transistors, etc.) are removed, they must not be reused. Always use a new part.

Replacement Procedures for Leadless (Chip) Components

The Following Procedures are Recommended for the Replacement of the Leadless Components Used in this Unit.

1. Preparation for replacement

a. Soldering Iron
Use a pencil-type soldering iron (less than 30 watts).

b. Solder
Eutectic solder (Tin 63%, Lead 37%) is recommended.

c. Soldering time
Do not apply heat for more than 4 seconds.

d. Preheating
Leadless capacitor must be preheated before installation. (130°C~150°C, for about two minutes.)

Notes:

a. Leadless components must not be reused after removal.

b. Excessive mechanical stress and rubbing for the component electrode must be avoided.

2. Removing the leadless component

Grasp the leadless component body with tweezers and alternately apply heat to both electrodes. When the solder on both electrodes has melted, remove leadless component with a twisting motion.

Notes:

a. Do not attempt to lift the component off the board until the component is completely disconnected from the board by the twisting action.

b. Be careful not to break the copper foil on the printed board.

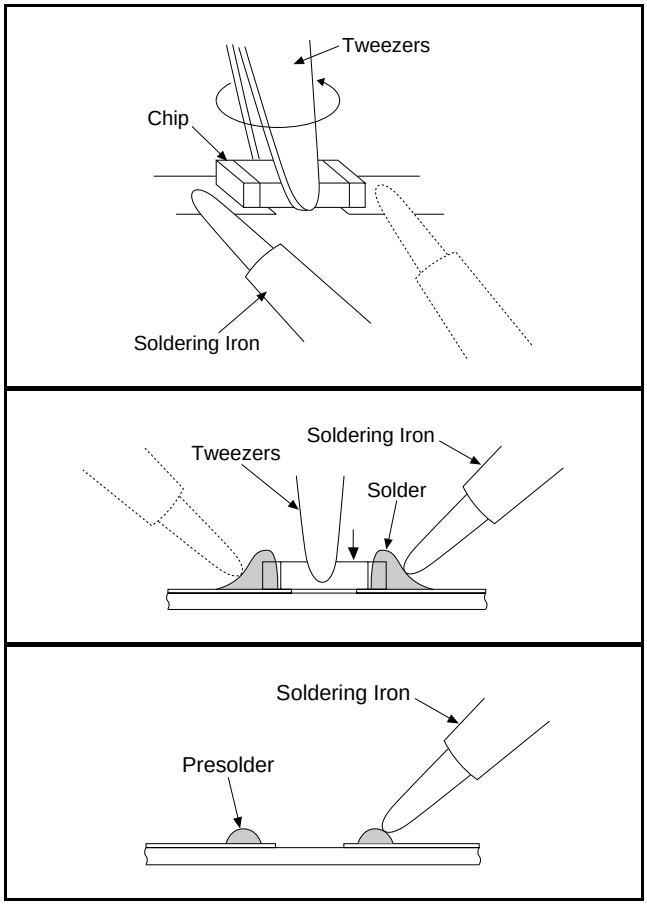
3. Installing the leadless component

a. Presolder the contact points of the circuit board.

b. Press the part downward with tweezers and solder both electrodes as shown below.

Note:

Do not glue the replacement leadless component to the circuit board.



How to Remove / Install Flat Pack IC

Caution:

1. Do not apply the hot air to the chip parts around the Flat Pack-IC for over 6 seconds as damage may occur to the chip parts. Put Masking Tape around the Flat Pack-IC to protect other parts from damage. (Fig. S-1-2)
2. The Flat Pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or solder lands under the IC when removing it.

1. Removal

With Hot - Air Flat Pack - IC Desoldering Machine:

a. Prepare the Hot - Air Flat Pack - IC Desoldering Machine, then apply hot air to Flat Pack - IC (about 5~6 seconds). (Fig. S-1-1)

b. Remove the Flat Pack- IC with tweezers while applying the hot air.

With Soldering Iron:

a. Using desoldering braid, remove the solder from all pins of the Flat Pack - IC. When you use solder flux which is applied to all pins of the Flat Pack - IC, you can remove it easily. (Fig. S-1-3)

b. Lift each lead of the Flat Pack - IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air Desoldering Machine. (Fig. S-1-4)

With Iron Wire:

a. Using desoldering braid, remove the solder from all pins of the Flat Pack - IC. When you use solder flux which is applied to all pins of the Flat Pack - IC, you can remove it easily. (Fig. S-1-3)

b. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.

c. Pull up on the wire as the solder melts so as to lift the IC leads from the CBA contact pads, while heating the pins using a fine tip soldering iron or hot air blower.

Note:

When using a soldering iron, care must be taken to ensure that the Flat Pack - IC is not being held by glue, or when it is removed from the CBA, it may be damaged if force is used.

2. Installation

a. Using desoldering braid, remove the solder from the foil of each pin of the Flat Pack - IC on the CBA, so you can install a replacement Flat Pack - IC more easily.

b. The "●" mark on the Flat Pack - IC indicates pin 1 (See Fig. S-1-6). Make sure this mark matches the 1 on the CBA when positioning for installation. Then pre - solder the four corners of the Flat Pack- IC (See Fig. S-1-7).

c. Solder all pins of the Flat Pack - IC. Make sure that none of the pins have solder bridges.

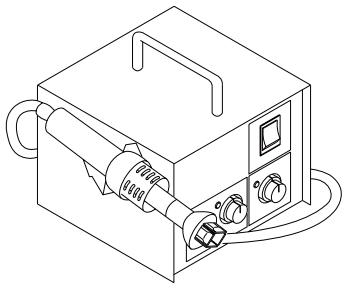


Fig. S-1-1

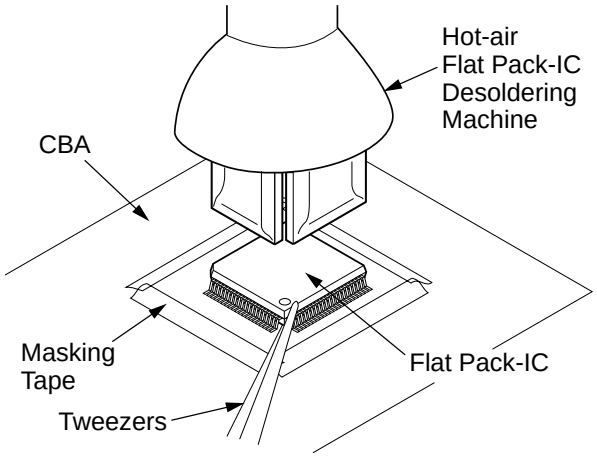


Fig. S-1-2

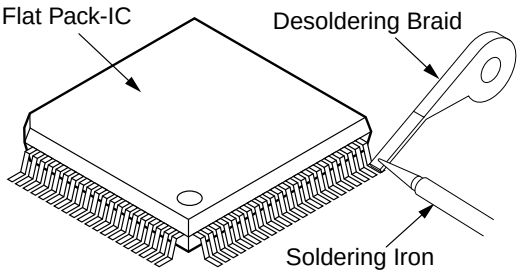


Fig. S-1-3

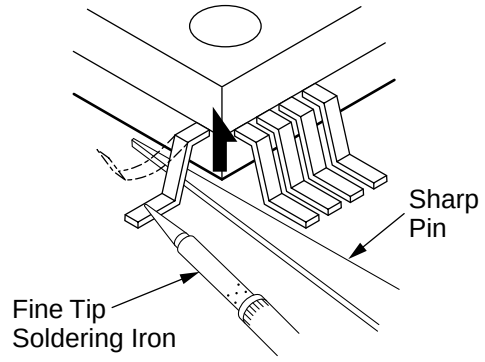


Fig. S-1-4

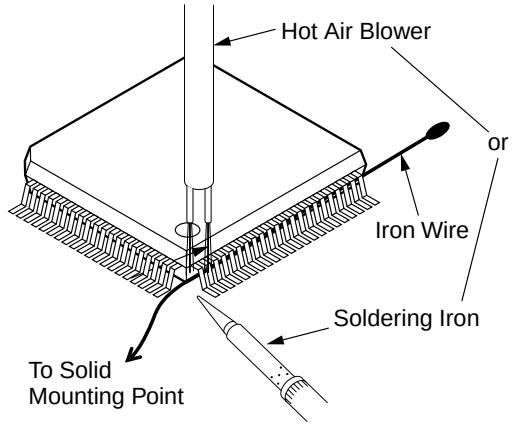
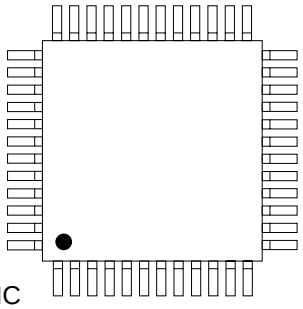


Fig. S-1-5

Example :



Pin 1 of the Flat Pack-IC
is indicated by a " ● " mark.

Fig. S-1-6

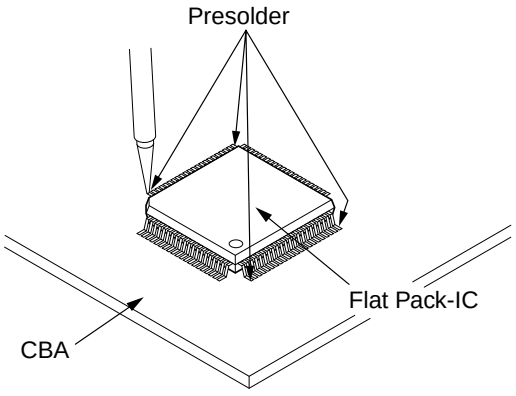


Fig. S-1-7

Instructions for Handling Semi-conductors

Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electro-static charge during unpacking or repair work.

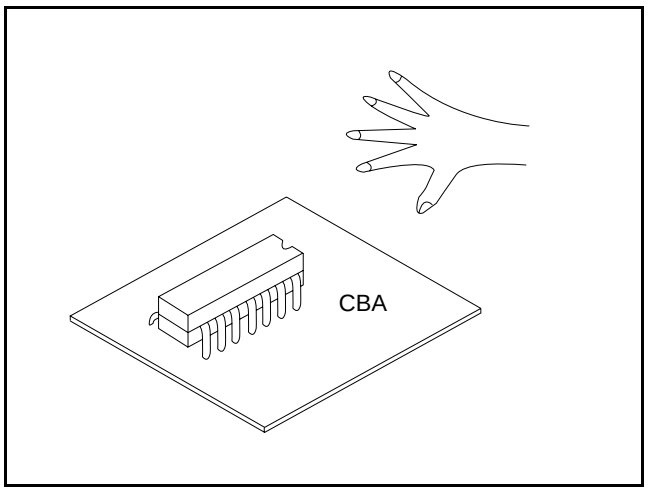
Ground for Human Body

Be sure to wear a grounding band (1MΩ) that is properly grounded to remove any static electricity that may be charged on the body.

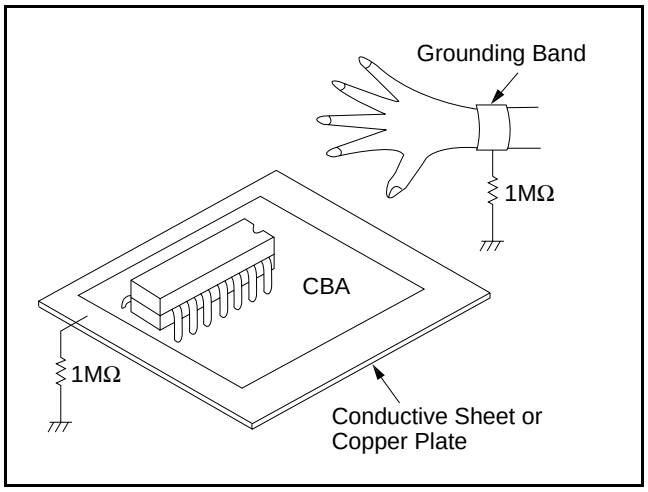
Ground for Work Bench

Be sure to place a conductive sheet or copper plate with proper grounding (1MΩ) on the work bench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on the clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors to clothing.

Incorrect



Correct



PREPARATION FOR SERVICING

How to Enter the Service Mode

Caution: 1

1. Optical sensors system are used for Tape Start and End Sensor on this equipment. Read this page carefully and prepare as described on this page before starting to service; otherwise, the unit may operate unexpectedly.

Preparing: 1

1. Cover Q1202 (START SENSOR) and Q1201 (END SENSOR) with Insulation Tape or enter the service mode to activate Sensor Inhibition automatically.

Note: Avoid playing, rewinding or fast forwarding the tape to its beginning or end, because both Tape End Sensors are not active.

How to Enter the Service Mode

1. Turn power on.
2. Use service remote control unit and press DISC MENU key. (See page1-8-1)
3. When entering the service mode, one of the number (1, 2 or 4) will display at corners of the screen.
4. During the service mode, electrical adjustment mode can be selected by remote control key. (Service remote control unit).

   Details are as follows.

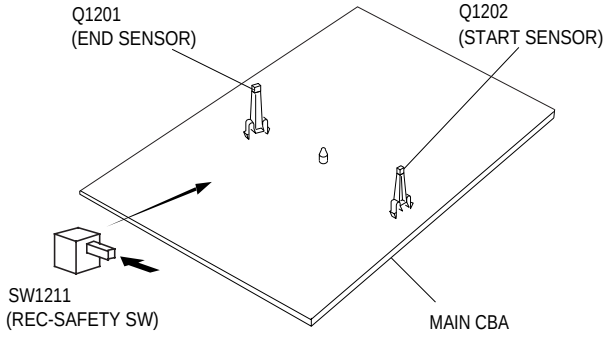
Key	Adjustment Mode
PICTURE	Picture adjustment mode : Press the PICTURE button to change from BRT (Bright), *CNT (Contrast), *CLR (Color), *TNT(Tint) and *V-T. Press CH UP/DOWN key to display Initial Value, Maximum and Minimum cyclically. *Marked items are not necessary to adjust normally.
0	C-Trap adjustment mode: See adjustment instructions page 1-8-2 .
1	No need to use.
2	AGC/H adjustment mode: See adjustment instructions page 1-8-2.
3	Auto AFT adjustment mode: See adjustment instructions page 1-8-1.
4	Auto record mode: Perform recording (15 Sec.)-->Stop-->Rewind (Zero return) automatically.
5	Head switching point adjustment mode: See adjustment instructions page 1-8-5.
6	No need to use.
7	Purity check mode: Shows Red, Green or Blue on the screen when the CH UP/DOWN keys are pressed.
8	H. Shift adjustment mode: See adjustment instructions page 1-8-3.
9	V.size/V. shift adjustment: See adjustment instructions page 1-8-3.

Caution: 2

1. The deck mechanism assembly is mounted on the Main CBA directly, and SW1211 (REC-SAFETY SW) is mounted on the Main CBA. When deck mechanism assembly is removed from the Main CBA due to servicing, this switch can not be operated automatically.

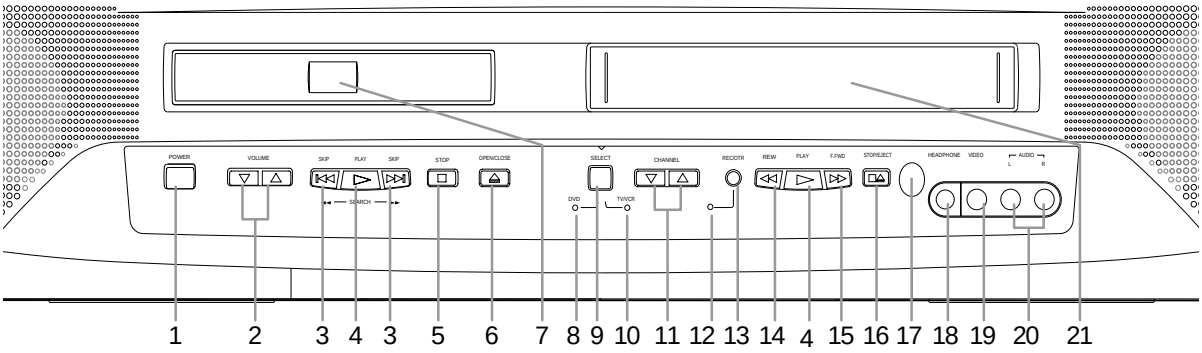
Preparing: 2

1. To eject the tape, press the STOP/EJECT button on the unit (or Remote Control).
2. When you want to record during the Service mode, press the Rec button while depressing SW1211 (REC-SAFETY SW) on the Main CBA.

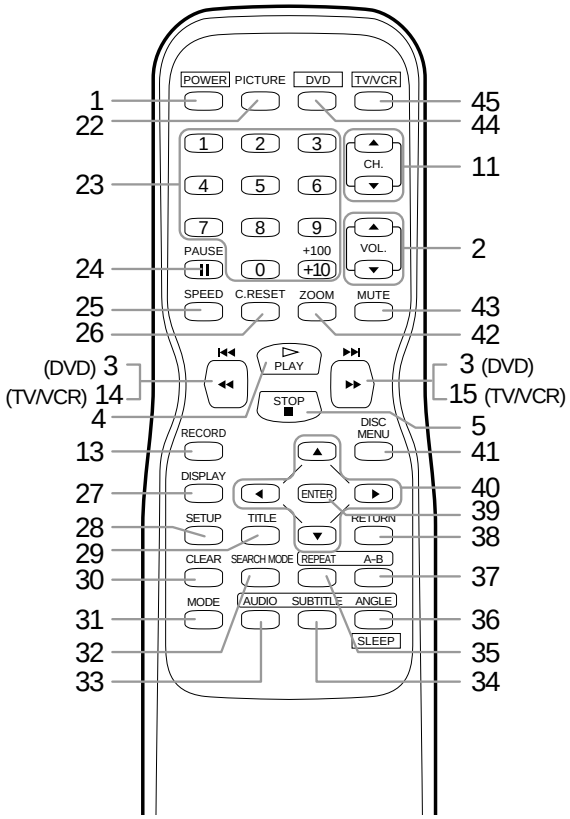


OPERATING CONTROLS AND FUNCTIONS

- TV/DVD/VHS FRONT PANEL -

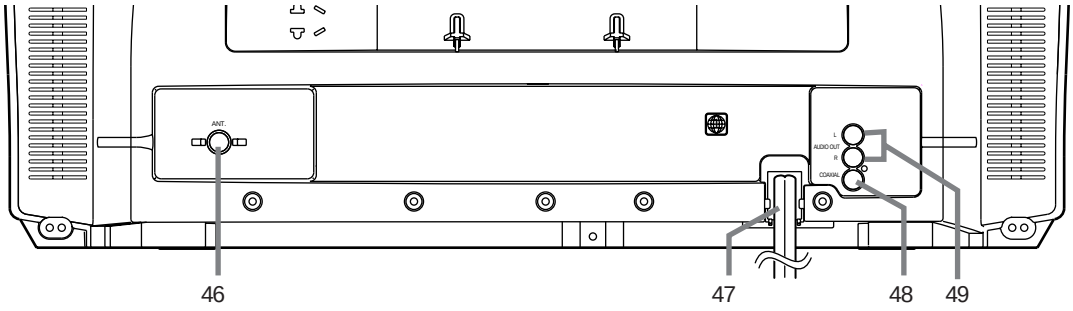


- REMOTE CONTROL -



1. **POWER button**
   Press to turn the power on and off.
2. **VOLUME ▲/▼ buttons**
   Press to control the volume level for the DVD and TV.
3. **SKIP buttons (for DVD)**
   Skip chapters or tracks to a desired point.
4. **PLAY button**
   Starts playback of the disc or tape contents.
5. **STOP button**
   Stops operation of the disc or tape.
6. **OPEN/CLOSE button**
   Press to insert discs into or remove them from the tray.
7. **Disc loading tray**
8. **DVD indicator**
   Lights on during DVD mode.
9. **SELECT button**
   Press to change to TV/VCR mode or DVD mode.
   NOTE: For about 4 seconds just after the DVD mode has switched to the TV mode, the button does not work to switch back to the DVD mode.
10. **TV/VCR indicator**
    Lights on during TV/VCR mode.
11. **CHANNEL ▲/▼ buttons**
    Press to select memorized channel.
12. **Recording indicator**
    Flashes during recording. Lights up in the Stand-by mode for Timer Recording.
13. **REC/OTR (RECORD) button**
    Press for manual recording. Activates One Touch Recording. (OTR is only on the TV/DVD/VHS)
14. **REW button (for TV/VCR)**
    Press to rewind the tape, or to view the picture rapidly in reverse during playback mode. (Rewind Search)
15. **FWD button (for TV/VCR)**
    Press to rapidly advance the tape, or to view the picture rapidly in forward during playback mode. (Forward Search)
16. **STOP/EJECT button**
    Press to stop the tape motion. Press in the Stop mode to remove tape from the unit.
17. **Remote sensor window**
18. **HEADPHONE jack**
    To connect headphone (not supplied) for personal listening.
19. **VIDEO input jack**
    Connect to the video output jack of a video camera or VCR.
20. **AUDIO L/R input jacks**
    Connect to the audio output jacks of a video camera or VCR.
21. **Cassette compartment**
22. **PICTURE button**
    Press to adjust the picture.

- TV/DVD/VHS REAR PANEL -



23. Number buttons

TV Mode:

Press two digits to directly access the desired channel.

Remember to press a "0" before a single digit channel.

+100 button–

Press to select cable channels which are equal or greater than number 100.

DVD Mode:

Press to enter the desired number.

+10 button–

Press to enter the desired numbers which are equal or greater than number 10.

24. PAUSE button

Pauses the current disc or tape operation.

25. SPEED button

Press to choose the desired recording speed: SP/SLP.

26. C.RESET button

Press to reset counter to 0:00:00.

Press to cancel a setting of timer program.

27. DISPLAY button

TV/VCR Mode:

Display the counter or the current channel number and current time on the TV screen.

DVD Mode:

Displays the current status on the TV screen for checking purposes.

28. SETUP button

Press to enter or exit the TV menu or DVD setup mode.

29. TITLE button

Displays the title menu.

30. CLEAR button

Resets a setting.

31. MODE button

Activates program playback or random playback mode.

32. SEARCH MODE button

Press to locate a desired point.

33. AUDIO button

Press to select a desired audio language or sound mode.

34. SUBTITLE button

Press to select a desired subtitle language.

35. REPEAT button

Repeats playback of the current disc, title, chapter or track.

36. ANGLE button (DVD mode)

Press to change the camera angle to see the sequence being played back from a different angle.

SLEEP button (TV/VCR mode)

Sets the Sleep Timer.

37. A-B REPEAT button

Repeats playback of a selected section.

38. RETURN button

Returns to the previous operation.

39. ENTER button

Press to accept a setting.

40. Arrow buttons

TV/VCR Mode:

Press to select a setting mode from the menu on the TV screen.

Press to select or adjust from a particular menu.

DVD Mode:

Use when making settings while watching the display on a TV screen.

41. DISC MENU button

Displays the menus in the DVD.

42. ZOOM Button

Enlarges part of a DVD-reproduced image.

43. MUTE button

Mutes the sound. Press it again to resume sound.

44. DVD button

Press to switch to DVD mode. DVD indicator on the front will lights on.

45. TV/VCR button

Press to switch to TV/VCR mode. TV/VCR indicator on the front will lights on.

46. ANT. in jack

Connect to an antenna, cable system, or satellite system.

47. Power cord

Connect to a standard AC outlet (120V/60Hz).

NOTE: Remove the power cord from the hook to avoid breaking a wire before you connect to a standard AC outlet.

48. COAXIAL digital audio out jack

Connect to the digital input of an external amplifier or decoder.

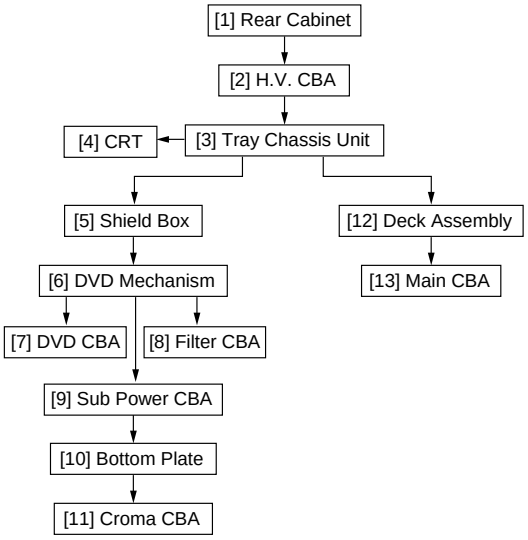
49. AUDIO L/R output jack

Connect to the analog audio input of an external amplifier or decoder.

CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps for the cabinet parts and the CBA in order to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route and dress the cables as they were.



2. Disassembly Method

STEP/ LOC. NO.	PART	REMOVAL		
		FIG. NO.	REMOVE/*UNLOCK/ RELEASE/UNPLUG/ UNCLAMP/DESOLDER	NOTE
[1]	Rear Cabinet	1, 2	7(S-1), 1(S-2), 1(S-3)	-
[2]	H.V. CBA (With Holder)	3, 4, 6	Anode Cap, CN501, CRT CBA, CN571, CN3602, CN1301, CN1302, 1(L-1)	1
[3]	Tray Chassis Unit	3, 6	CN2802, CN3404, CN3601	-
[4]	CRT	4	4(S-5)	-
[5]	Shield Box	3	5(S-6)	-
[6]	DVD Mechanism	3, 6	CN501, CN701, 3(S-7)	-
[7]	DVD CBA	5	3(S-8), CN001, CN201	2-1 2-2 2-3 3
[8]	Filter CBA	3, 6	2(S-9), CN401, CN402, CN403	-
[9]	Sub Power CBA	3, 6	2(S-10), CN3603, CN3604	-
[10]	Bottom Plate	3	6(S-11)	-
[11]	Croma CBA	3, 6	3(S-12), CN3202, CN3203, CN3204, CN3205, CN3206	-
[12]	Deck Assembly	3, 6	7(S-13), CN1201, CN1202, CN1401, CN1402, CN1403	-
[13]	Main CBA	3	5(S-14)	-
		↓ ③	↓ ④	↓ ⑤
		①	②	

Note :

①. Order of steps in Procedure. When reassembling, follow the steps in reverse order.
These numbers are also used as the Identification (location) No. of parts in Figures.

②. Parts to be removed or installed.

③. Fig. No. showing Procedure of Part Location

④. Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.

S=Screw, P=Spring, L=Locking Tab, CN=Connector, *=Unhook, Unlock, Release, Unplug, or Desolder

4(S-1) = four Screws (S-1)

⑤. Refer to the following "Reference Notes in the Table."

Caution !

When removing the CRT, be sure to discharge the Anode Lead of the CRT with the CRT Ground Wire before removing the Anode Cap.

Reference Notes in the Table

CAUTION 1: Discharge the Anode Lead of the CRT with the CRT Ground Wire before removing the Anode Cap.

1. Disconnect the following: Anode Cap, CN501, CRT CBA, CN571, CN1301, CN1302 and CN3602.

   Release a Locking Tab (L-1), and then remove H.V. CBA (with Holder).

CAUTION 2: Electrostatic breakdown of the laser diode in the optical system block may occur as a potential difference caused by electrostatic charge accumulated on cloth, human body etc, during unpacking or repair work.

To avoid damage of pickup follow next procedures.

2-1. Slide out the pickup unit as shown in Fig. 5.

2-2. Short the copper pattern (half-moon shape) of FPC cable with solder before removing the FFC cable (CN001) from it. If you disconnect the FFC cable (CN001), the laser diode of pickup will be destroyed. (Fig. 5)

2-3. Disconnect Connector (CN201). Remove four Screws (S-8) and lift the DVD CBA. (Fig. 5)

CAUTION 3: When reassembling, confirm the FFC cable (CN001) is connected completely. Then remove the solder from copper pattern (half-moon shape) of FPC cable. (Fig. 5)

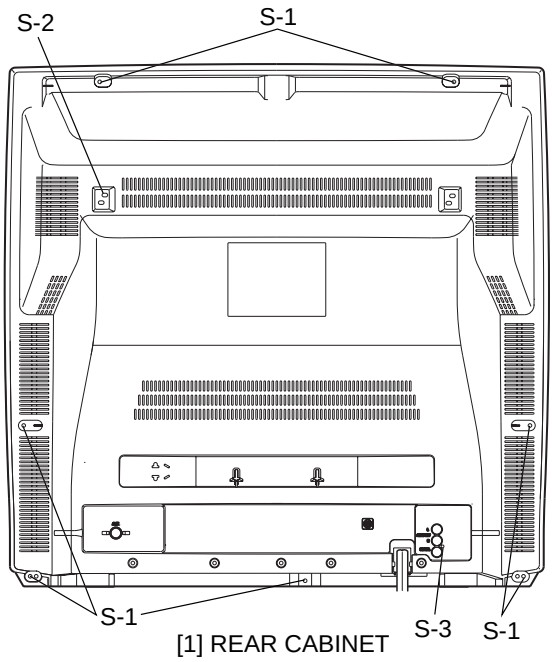


Fig. 1

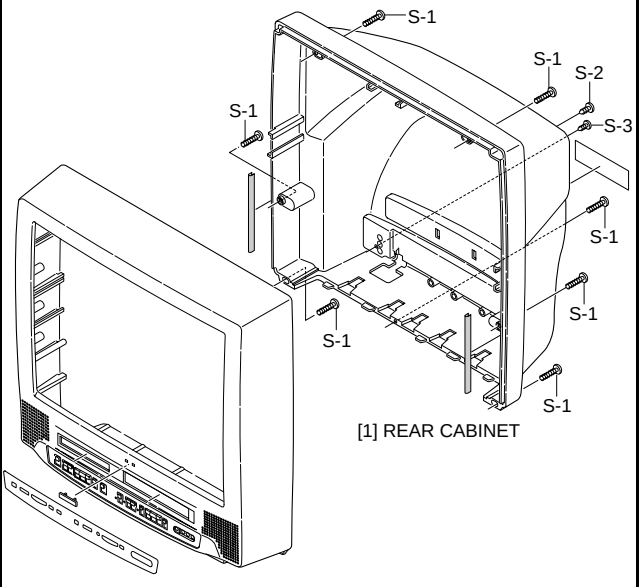


Fig. 2

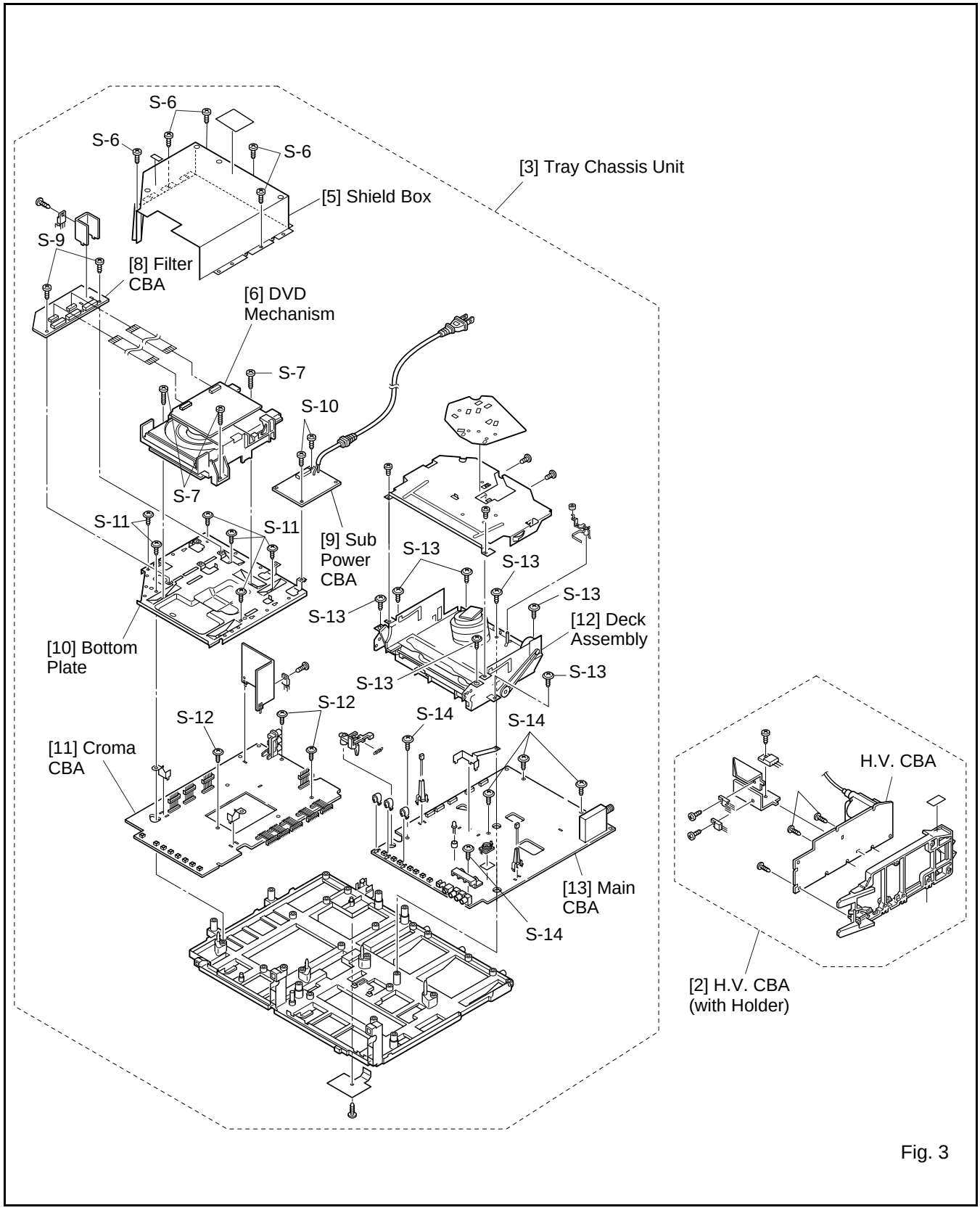

S-6
S-6
S-6
[3] Tray Chassis Unit
[5] Shield Box
S-9
[8] Filter CBA
[6] DVD Mechanism
S-7
S-10
S-7
S-11
S-11
[9] Sub Power CBA
S-13
S-13
S-13
S-13
[12] Deck Assembly
S-13
[10] Bottom Plate
S-12
S-12
S-14
S-14
[11] Croma CBA
[13] Main CBA
S-14
H.V. CBA
[2] H.V. CBA (with Holder)

Fig. 3

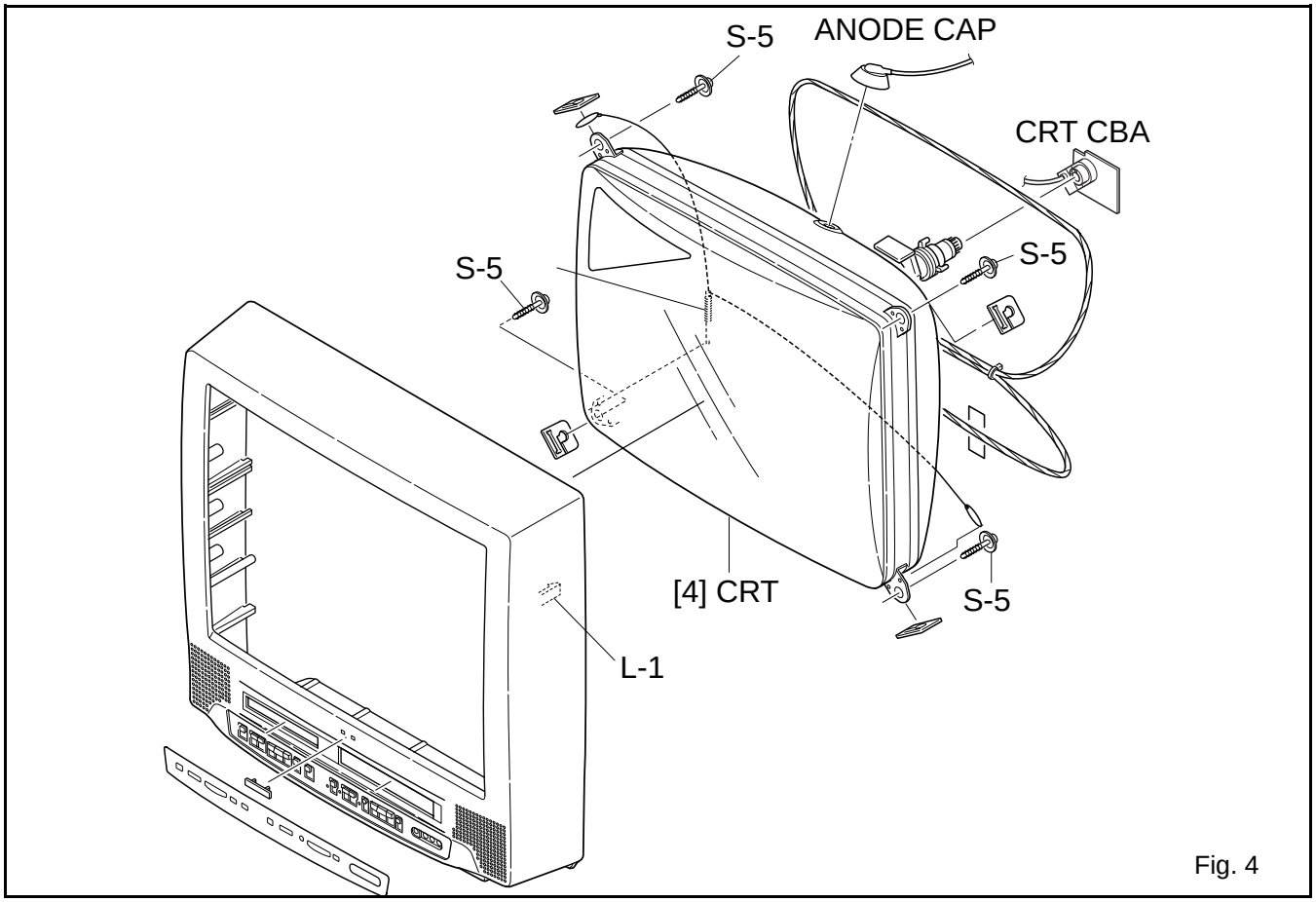

S-5
ANODE CAP
CRT CBA
S-5
S-5
[4] CRT
S-5
L-1

Fig. 4

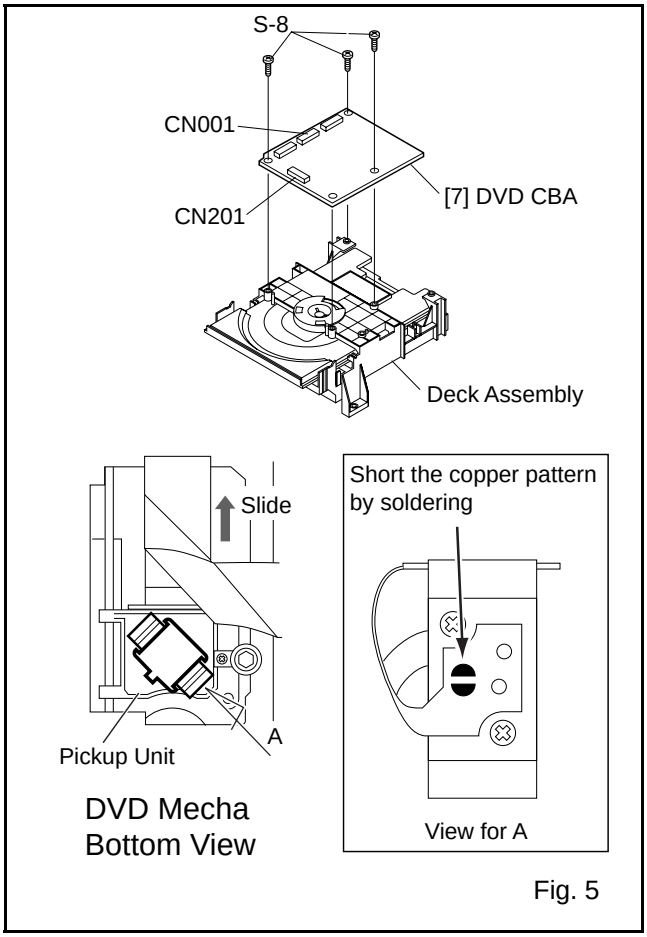

S-8
CN001
CN201
[7] DVD CBA
Deck Assembly
Slide
A
Pickup Unit
DVD Mecha
Bottom View
Short the copper pattern
by soldering
View for A

Fig. 5

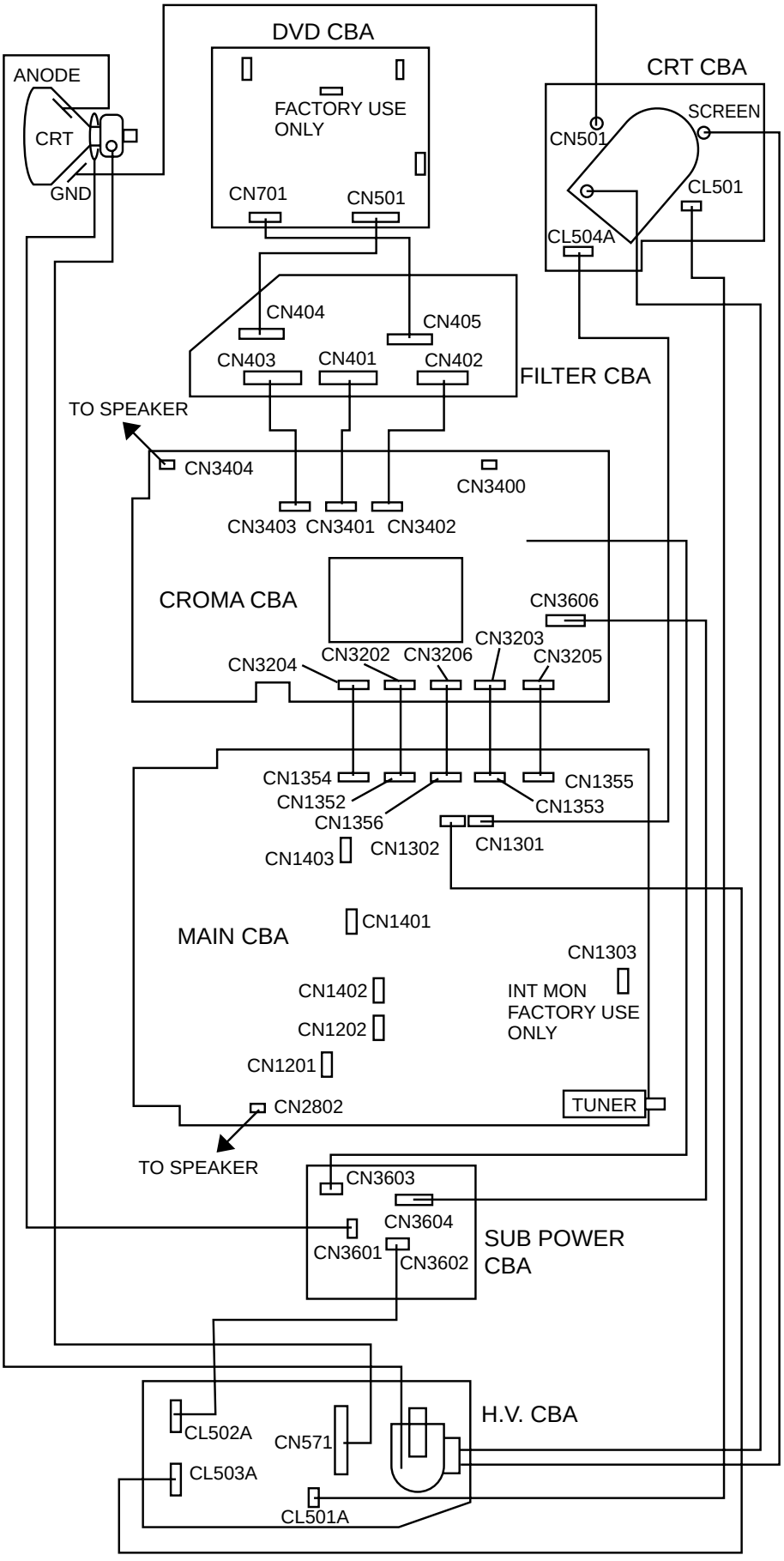

DVD CBA
ANODE
CRT
GND
FACTORY USE
ONLY
CN701
CN501
CRT CBA
SCREEN
CN501
CL501
CL504A
CN404
CN405
CN403
CN401
CN402
FILTER CBA
TO SPEAKER
CN3404
CN3400
CN3403
CN3401
CN3402
CROMA CBA
CN3606
CN3203
CN3202
CN3206
CN3205
CN3204
CN1354
CN1355
CN1352
CN1353
CN1356
CN1403
CN1302
CN1301
CN1401
MAIN CBA
CN1303
CN1402
INT MON
FACTORY USE
ONLY
CN1202
CN1201
CN2802
TUNER
TO SPEAKER
CN3603
CN3604
CN3601
CN3602
SUB POWER
CBA
H.V. CBA
CL502A
CN571
CL503A
CL501A

Fig. 6

ELECTRICAL ADJUSTMENT INSTRUCTIONS

< TV Section >

General Note:
"CBA" is abbreviation for "Circuit Board Assembly."

NOTE:

Electrical adjustments are required after replacing circuit components and certain mechanical parts.

It is important to perform these adjustments only after all repairs and replacements have been completed.

Also, do not attempt these adjustments unless the proper equipment is available.

Test Equipment Required

1. NTSC Pattern Generator (Color Bar W/White Window, Red Color, Dot Pattern, Gray Scale, Monoscope, Multi-Burst)
2. AC Milli Voltmeter (RMS)
3. DC Voltmeter
4. Oscilloscope: Dual-trace with 10:1 probe,
   V-Range: 0.001~50V/Div,
   F-Range: DC~AC-60MHz
5. Frequency Counter
6. Plastic Tip Driver

How to make Service remote control unit:

1. Prepare normal remote control unit. (Part no. N0288UD) Remove 4 Screws from the back lid. (Fig. 1-1)
2. Cut the pattern of the pin 10 on the IC and then connect a lead between pin 10 and pin 17.

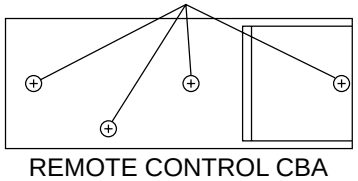


Fig. 1-1

How to set up the service mode:

Service mode:

1. Use the service remote control unit.
2. Turn the power on. (Use main power on the TV unit.)
3. To enter the TV mode, press CH UP or CH DOWN button on the TV unit.
4. Press "DISC MENU" button on the service remote control unit. (Version of micro computer will display on the CRT. (Ex: 057-001)

X-Ray Protection Test

X-Ray protection test should be done when replacing any parts of this chassis.

1. Short test points J520 and J522 (on H.V. CBA).
2. Confirm that the main power turns off.
3. If the main power does not turn off, then replace the following parts (D591, Q592, R592, R593, R594 and IC1201).
4. Perform steps 1 to 3 again.

1. DC 120V (+B) Adjustment

Purpose: To obtain correct operation.

Symptom of Misadjustment: The picture is dark and unit does not operate correctly.

Test Point	Adjustment Point	Mode	Input
J523 (+B) HEAT SINK (on H.V. CBA) (GND)	VR3601	---	---
Disc	**M. EQ.**	**Spec.**	
---	DC Voltmeter	+120±0.5V DC.	

Note: J523(+B), HEAT SINK(GND) --- H.V. CBA
VR3601 --- Power Supply CBA

1. Connect the unit to an isolation transformer.
2. Connect DC Volt Meter to J523(+B) and HEAT SINK (on H.V. CBA)(GND).
3. Adjust VR3601 so that the voltage of J523(+B) becomes +120±0.5V DC.

2. AFT (VCO) Adjustment

Purpose: To operate AFT correctly.

Symptom of Misadjustment: AFT does not work correctly and/or synchronization is faulty.

Test Point	Adjustment Point	Mode	Input
TP1002	L1031	---	Color Bar 67.25MHz 60dBμV
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator DC Volt Meter	+2.3±0.1V	

Notes: TP1002, L1031 --- Main CBA

1. Receive the Color Bar signal for channel 4 (67.25MHz). (RF Input Level: 60dBμV)
2. Enter the Service mode. (see page 1-8-1) Then press "3" button on the remote control unit
3. Turn core on L1031 by the tool (example: ceramic screwdriver) so that the voltage of TP1002 becomes +2.3±0.1V.

3. TV AGC Adjustment

Purpose: Set AGC (Auto Gain Control) Level.

Symptom of Misadjustment: AGC does not synchronize correctly when RF input level is too weak and picture distortion may occur if it is too strong.

Test Point	Adjustment Point	Mode	Input
TP1001	CH. ▲ / ▼ buttons	---	Color Bar 67.25MHz 60dBμV
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator DC Volt Meter	+2.8±0.3VDC	

Notes: TP1001 --- Main CBA

1. Enter the Service mode. (see page 1-8-1) Then press number 2 button on the remote control unit.
2. Receive the Color Bar signal for channel 4 (67.25MHz). (RF Input Level: 60dBμV)
3. Press CH. ▲ / ▼ buttons so that the voltage of TP1001 becomes +2.8±0.3V DC.
4. Turn the power off and on again.

4-1. H Adjustment

Purpose: To get correct horizontal position and size of screen image.

Symptom of Misadjustment: Horizontal position and size of screen image may not be properly displayed.

Test Point	Adjustment Point	Mode	Input
R583	CH ▲ / ▼ buttons	VIDEO	----
Disc	**M. EQ.**	**Spec.**	
----	Frequency Counter	15.734kHz±300Hz	

Note: R583 --- Main CBA

1. Connect frequency counter to R583.
2. Operate the unit for at least 20 minutes.
3. Enter the Service mode. (see page 1-8-1) Then press "2" button on the remote control unit and select H-ADJ Mode. (By pressing "2" button the display will change H-ADJ and AGC cyclically).
4. Press CH ▲ / ▼ buttons on the remote control unit so that the display will change "0" to "7."
5. At this moment, choose display "0" to "7" when the frequency counter shows 15.734kHz±300Hz.
6. Turn the power off and on again.

4-2. C-Trap Adjustment

Purpose: To get minimum leakage of the color signal carrier.

Symptom of Misadjustment: If C-Trap Adjustment is incorrect, stripes will appear on the screen.

Test Point	Adjustment Point	Mode	Input
TP1301 (R-Out)	CH ▲ / ▼ buttons	---	Color Bar
Disc	**M. EQ.**	**Spec.**	
----	Oscilloscope	----	
Figure			

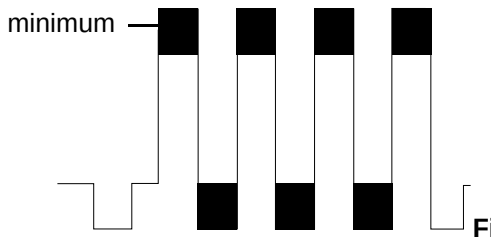


Fig. 2

Note: TP1301 (R-Out)--- Main CBA

1. Connect oscilloscope to TP1301.
2. Input a color bar signal from RF input.
   Enter the Service mode. (see page 1-8-1)
3. Press "0" button on the remote control unit and select C-TRAP mode.
4. Press CH ▲ / ▼ buttons on the remote control unit so that the carrier leakage R-Out (3.58MHz) value becomes minimum on the oscilloscope.
5. Turn the power off and on again.

5. V. Size Adjustment

Purpose: To obtain correct vertical height of screen image.

Symptom of Misadjustment: If V. Size is incorrect, vertical height of image on the screen may not be properly displayed.

Test Point	Adjustment Point	Mode	Input
---	CH ▲ / ▼ buttons	---	Monoscope
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	90±5%	

Note:

1. Enter the Service mode. (see page 1-8-1)
   Press "9" button on the remote control unit and select V-S mode. (By pressing "9" button the display will change V-P and V-S cyclically).
2. Input the Monoscope pattern.
3. Press CH ▲ / ▼ buttons on the remote control unit so that the monoscope pattern is 90±5% of display size and the circle is round.

6. V. Shift Adjustment

Purpose: To obtain correct vertical position of screen image.

Symptom of Misadjustment: If V. shift is incorrect, vertical position of image on the screen may not be properly displayed.

Test Point	Adjustment Point	Mode	Input
---	CH ▲ / ▼ buttons	---	Monoscope
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	90±5%	

Note:

1. Enter the Service mode. (see page 1-8-1)
   Press "9" button on the remote control unit and select V-P mode. (By pressing "9" button the display will change V-P and V-S cyclically).
2. Input Monoscope pattern.
3. Press CH ▲ / ▼ buttons on the remote control unit so that the left and right side of the Monoscope pattern are equal to each other. (90±5%)

7. H. Shift Adjustment

Purpose: To obtain correct horizontal position and size of screen image.

Symptom of Misadjustment: Horizontal position and size of screen image may not be properly displayed.

Test Point	Adjustment Point	Mode	Input
---	CH ▲ / ▼ buttons	---	Monoscope
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	90±5%	

Note:

1. Enter the Service mode. (see page 1-8-1)
   Press "8" button on the remote control unit and select H-P mode.
2. Input Monoscope pattern.
3. Press CH ▲ / ▼ buttons on the remote control unit so that the left and right side of the Monoscope pattern are equal to each other. (90±5%)
4. Turn the power off and on again.

8. Cut-off Adjustment

Purpose: To adjust the beam current of R, G, B, and screen voltage.

Symptom of Misadjustment: White color may be reddish, greenish or bluish.

Test Point	Adjustment Point	Mode	Input
---	Screen-Control	Ext.	Black Raster / White Raster
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	See Reference Notes below.	
Figure			

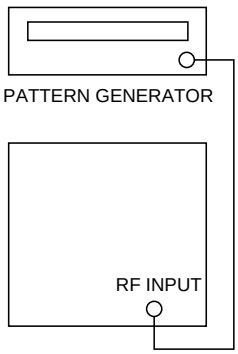


Fig. 3

Note: Screen Control FBT --- H/V CBA

F.B.T= Fly Back Transformer

Use the remote control unit

1. Degauss the CRT and allow CRT to operate for 20 minutes before starting the alignment.
2. Set the screen control to minimum position. Input the black raster signal from RF input.
3. Enter the Service Mode. Dimmed horizontal line appears on the CRT. (see page 1-8-1)
4. Press the "VOL ▼" button. (By pressing VOL ▼ the display will change CUT OFF/DRIVE, VCO adjustment cyclically).
5. Choose CUT OFF/DRIVE mode then press "1" button. This adjustment mode is CUT OFF (R).
6. Press the "CH ▲ / ▼" button until the horizontal line becomes white.
7. Choose CUT OFF/DRIVE mode then press "2" button. This adjustment mode is CUT OFF (G). Press "CH ▲ / ▼" until the horizontal line becomes white.
8. Choose CUT OFF/DRIVE mode then press "3" button. This adjustment mode is CUT OFF (B). Press "CH ▲ / ▼" until the horizontal line becomes white.
9. Input the white raster signal from Video In.
10. Choose CUT OFF/DRIVE mode then press "4." Adjust the RED DRIVE as needed with the CH ▲ / ▼ buttons.
11. Choose CUT OFF/DRIVE mode then press "5." Adjust the BLUE DRIVE as needed with the CH ▲ / ▼ buttons.
12. Turn the power off and on again.

9. H. Size Adjustment

Purpose: To obtain correct size of screen image.

Symptom of Misadjustment: Size of screen image may not be properly displayed.

Test Point	Adjustment Point	Mode	Input
---	VR531	---	Monoscope
Tape	M. EQ.	Spec.	
---	Pattern Generator	90+1%/-5%	

Note:

1. Input Monoscope pattern.
2. Adjust VR531 so that the size of Monoscope pattern are equal to each other. (90+1%/-5%)

10. H. Pincushion Adjustment

Purpose: To obtain straight line on the screen.

Symptom of Misadjustment: Straight line image may not be properly displayed.

Test Point	Adjustment Point	Mode	Input
---	VR530	---	Cross hatch
Tape	M. EQ.	Spec.	
---	Pattern Generator	See below	

Note:

1. Input Cross hatch pattern.
2. Adjust VR530 so that the line of the Cross hatch pattern becomes straight.

11. Sub-Brightness Adjustment

Purpose: To get proper brightness.

Symptom of Misadjustment: If Sub-Brightness is incorrect, proper brightness cannot be obtained by adjusting the Brightness Control.

Test Point	Adjustment Point	Mode	Input
---	CH ▲ / ▼ buttons	---	SYMPTE 7.5 IRE
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	See below	
Figure			

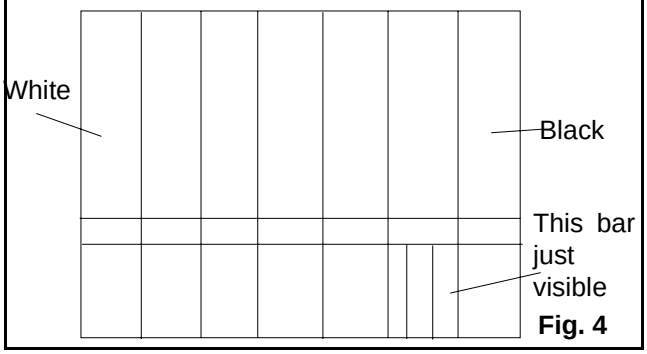


Fig. 4

Note: SYMPTE Setup level --- 7.5 IRE

1. Enter the Service Mode. (see page 1-8-1)
   Then input SYMPTE signal from RF input.
2. Press PICTURE button. (By pressing MENU button the display will change B R T, C N T, T N T, V-T and SHP cyclically). Select BRT and press CH ▲ / ▼ buttons so that the bar is just visible (see above figure).
3. Turn the power off and on again.

12. Focus Adjustment

Purpose: Set the optimum Focus.

Symptom of Misadjustment: If Focus Adjustment is incorrect, blurred images are shown on the display.

Test Point	Adjustment Point	Mode	Input
---	Focus Control	---	Monoscope
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	See below.	

Note: Focus VR (FBT) --- H/V CBA

FBT= Fly Back Transformer

1. Operate the unit more than 30 minutes
2. Face the unit to the East and degauss the CRT using a Degaussing Coil.
3. Input the Monoscope pattern.
4. Adjust the Focus Control on the FBT to obtain a clear picture.

13. SIF Adjustment

Purpose: To set the SIF (Sound Intermediate Frequency).

Symptom of Misadjustment: Audio may not sound correctly.

Note: This adjustment automatically done by the chrominance IC (IC3301).

14. CCS Text Box Location

When replacing the CRT, the CCS Box might not stay in appropriate position. Then, replace micro computer.

Note: This adjustment automatically done by the microcomputer.

15. Head Switching Position Adjustment

Purpose: Determine the Head Switching Point during Play back.

Symptom of Misadjustment: May cause Head Switching Noise or Vertical Jitter in the picture.

Note: Unit reads Head Switching Position automatically and displays it on the screen (Upper Left Corner).

1. Playback test tape (FL8A, FL8N).
2. Enter the Service Mode. (See page 1-8-1)
   Then press the number 5 button on the remote control unit.
3. The Head Switching position will display on the screen; if adjustment is necessary follow step 4. 6.5H(412.7µs) is preferable.
4. Press "CH ▲" or "CH ▼" button on the remote control unit if necessary. The value will be changed in 0.5H steps up or down. Adjustable range is up to 9.5H. If the value is beyond adjustable range, the display will change as:
   Lower out of range; 0.0H
   Upper out of range; -.-H
5. Turn the power off and on again.

The following 2 adjustments normally are not attempted in the field. They should be done only when replacing the CRT then adjust as a preparation.

16. Purity Adjustment

Purpose: To obtain pure color.

Symptom of Misadjustment: If Color Purity Adjustment is incorrect, large areas of color may not be properly displayed.

Test Point	Adjustment Point	Mode	Input
---	Deflection Yoke Purity Magnet	---	Red Color
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	See below.	
Figure			

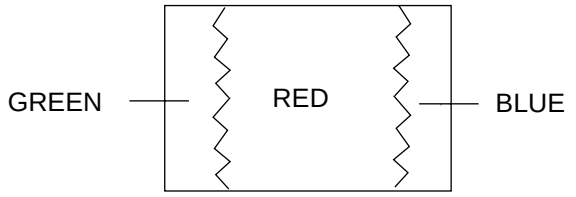


Fig. 5

1. Set the unit facing east.
2. Operate the unit for over 30 minutes before adjusting.
3. Fully degauss the unit using an external degaussing coil.
4. Set the unit to the AUX Mode which is located before CH2 then input a red raster from video in.
5. Loosen the screw on the Deflection Yoke Clamper and pull the Deflection Yoke back away from the screen. (See Fig. 6)
6. Loosen the Ring Lock and adjust the Purity Magnets so that a red field is obtained at the center of the screen. Tighten Ring Lock. (See Fig. 5,6)
7. Slowly push the Deflection Yoke toward the bell of the CRT and set it where a uniform red field is obtained.
8. Tighten the clamp screw on the Deflection Yoke.

17. Convergence Adjustment

Purpose: To obtain proper convergence of red, green and blue beams.

Symptom of Misadjustment: If Convergence Adjustment is incorrect, the edge of white letters may have color edges.

Test Point	Adjustment Point	Mode	Input
---	C.P. Magnet (RB), C.P. Magnet (RB-G), Deflection Yoke	---	Dot Pattern or Crosshatch
Disc	**M. EQ.**	**Spec.**	
---	Pattern Generator	See below.	

Figures

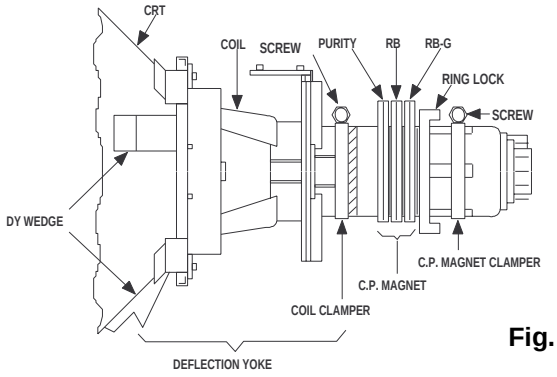


Fig. 6

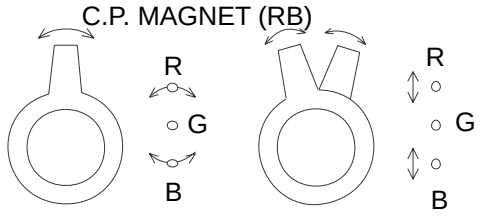


Fig. 7

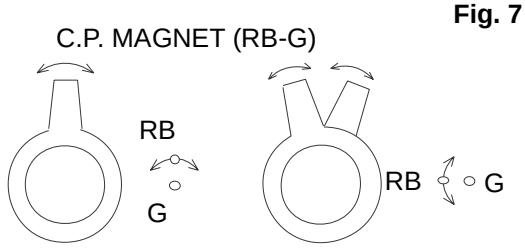
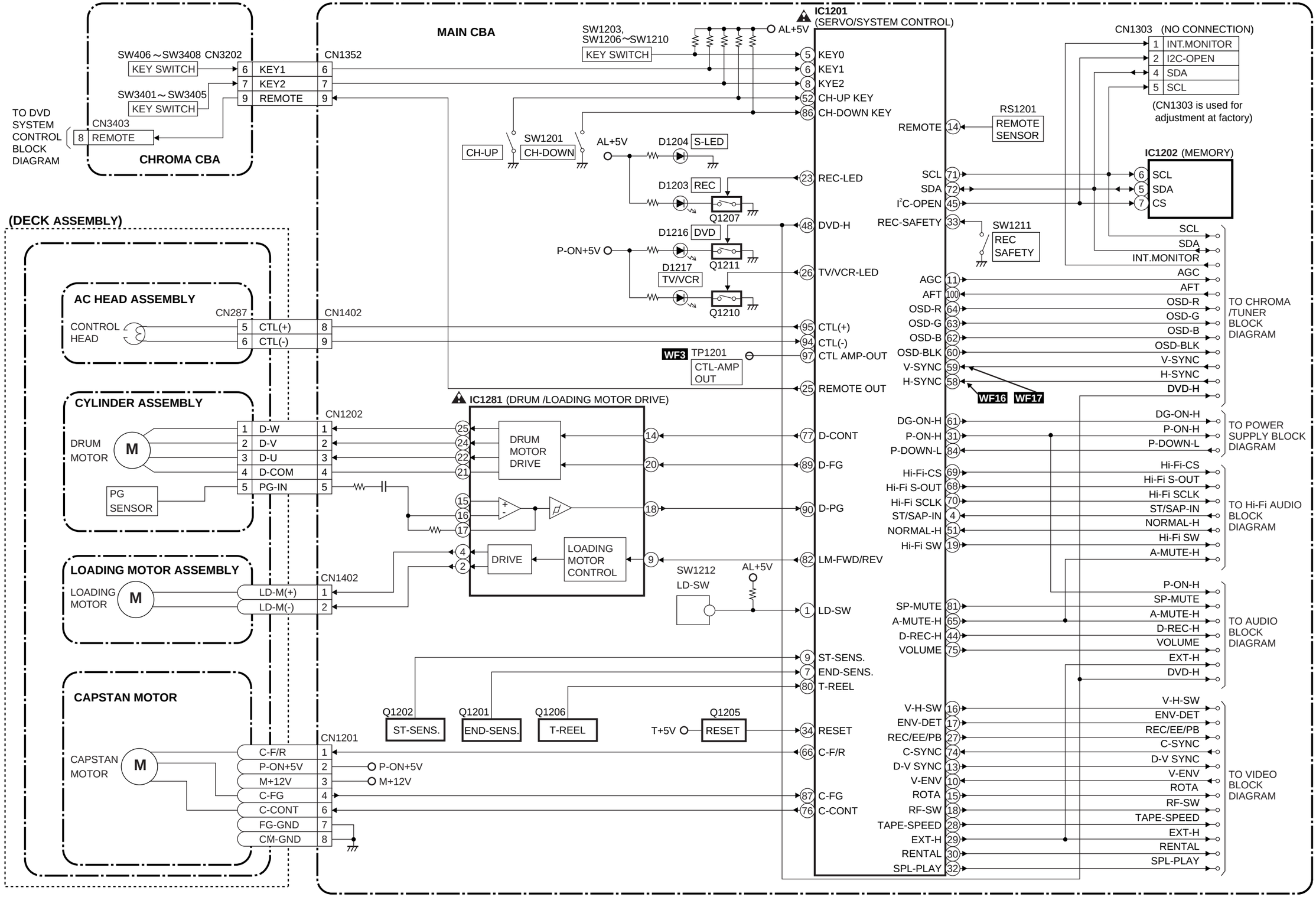


Fig. 8

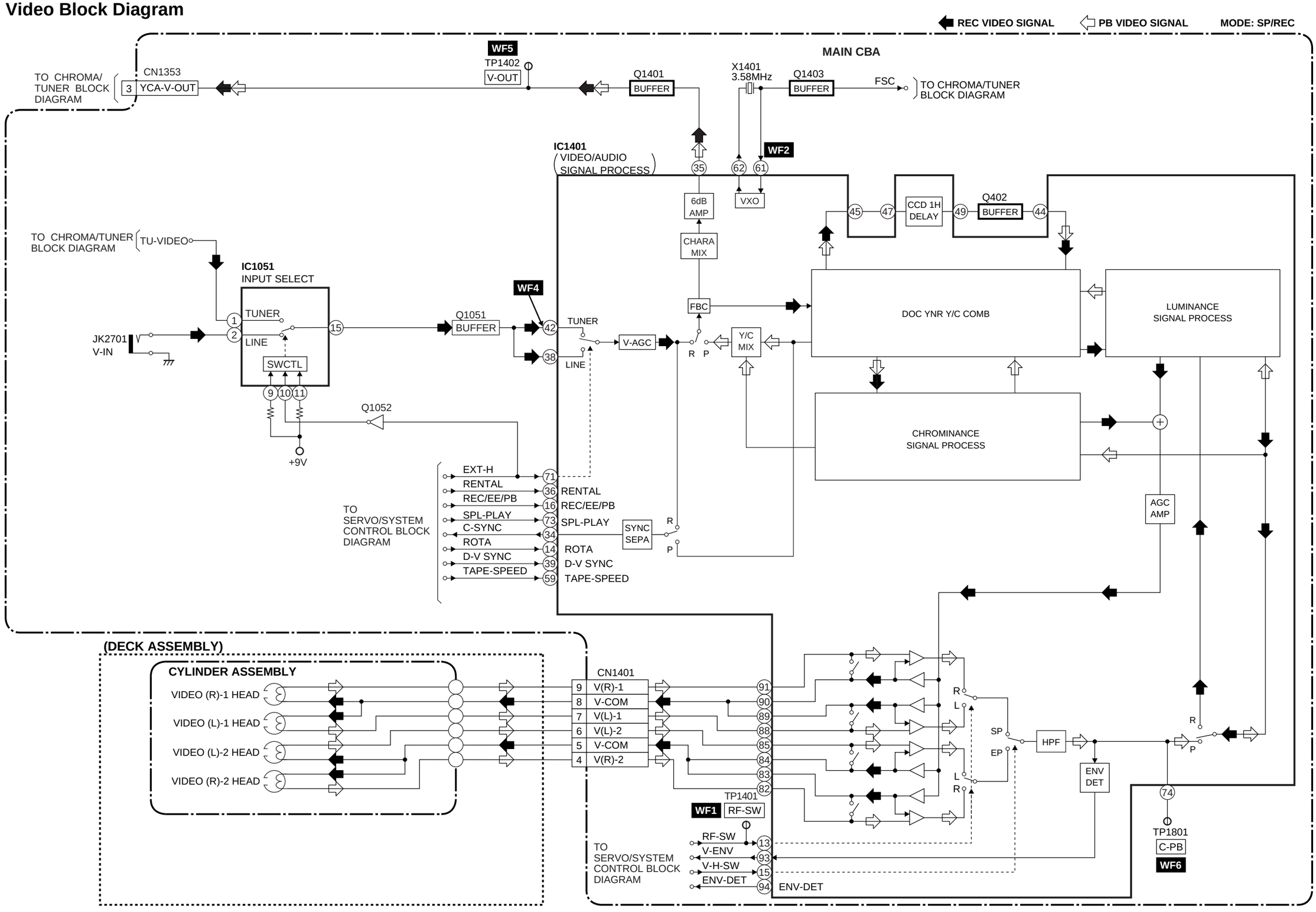
1. Set the unit to the AUX Mode which is located before CH2 then input a dot or crosshatch pattern.
2. Loosen the Ring Lock and align red with blue dots or crosshatch at the center of the screen by rotating (RB) C.P. Magnets. (See Fig. 7)
3. Align red / blue with green dots at the center of the screen by rotating (RB-G) C.P. Magnet. (See Fig. 8)
4. Fix the C.P. Magnets by tightening the Ring Lock.
5. Remove the DY Wedges and slightly tilt the Deflection Yoke horizontally and vertically to obtain the best overall convergence.
6. Fix the Deflection Yoke by carefully inserting the DY Wedges between CRT and Deflection Yoke.

BLOCK DIAGRAMS <TV/VCR Section>

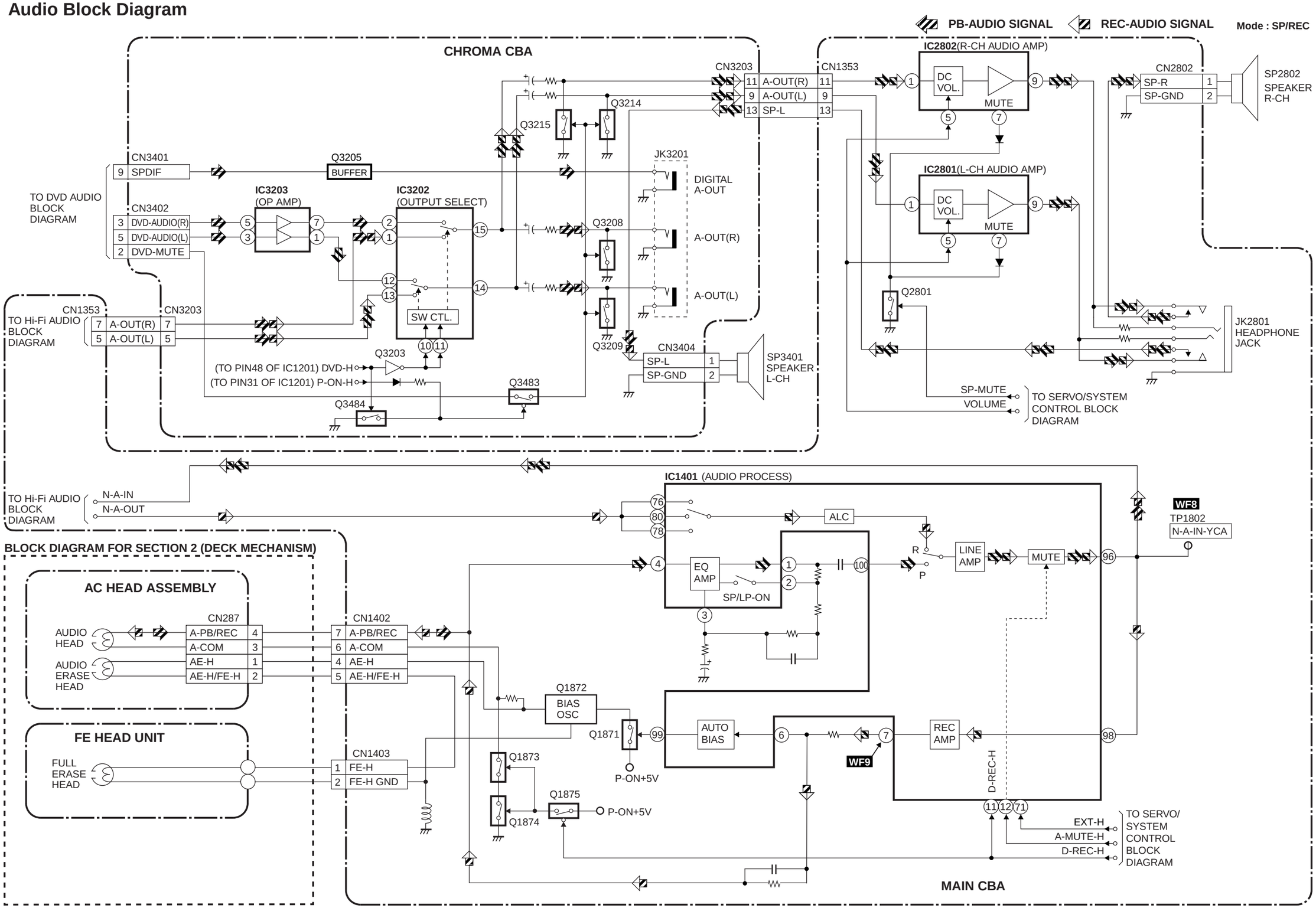
Servo/System Control Block Diagram



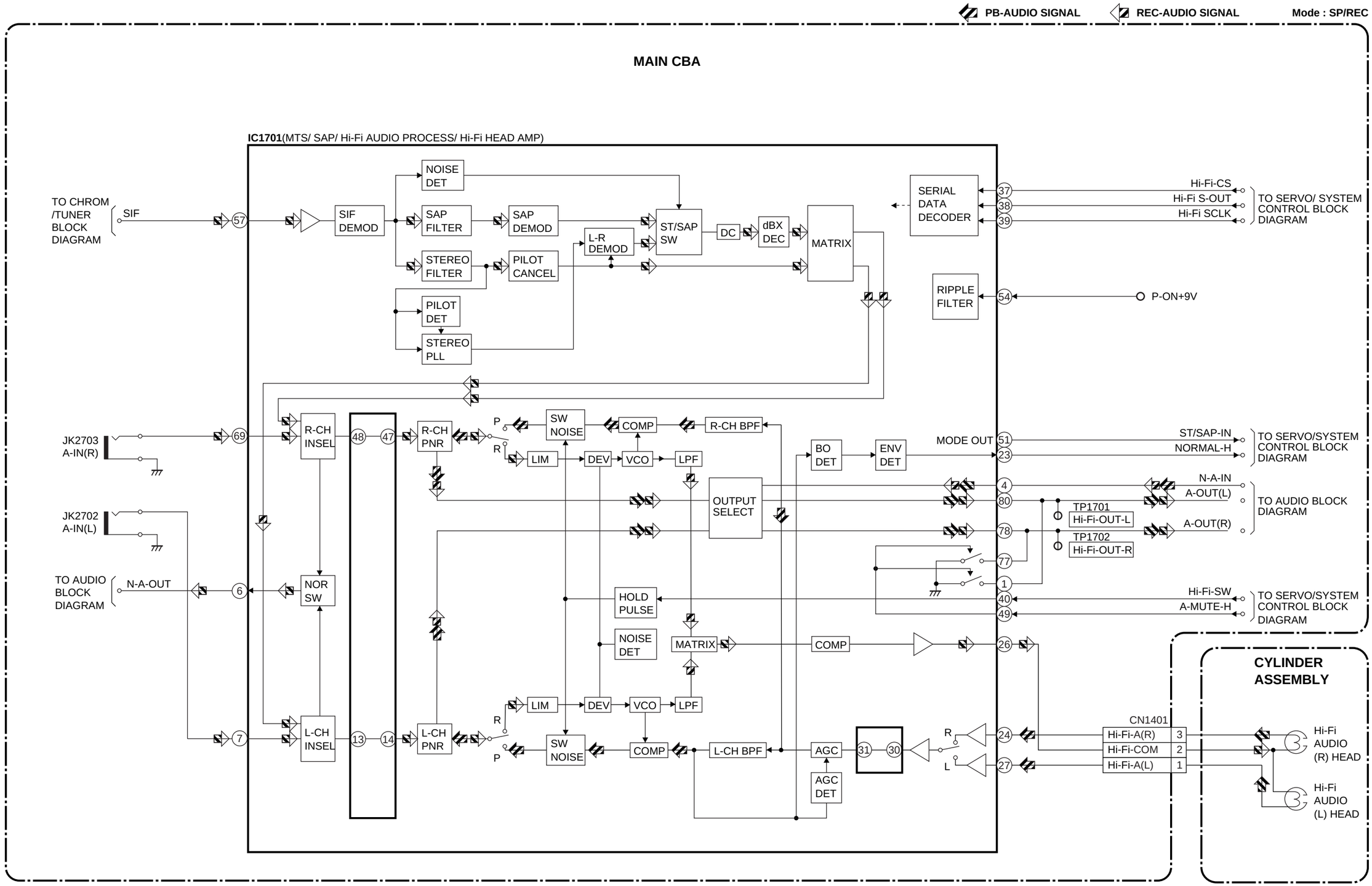
Video Block Diagram



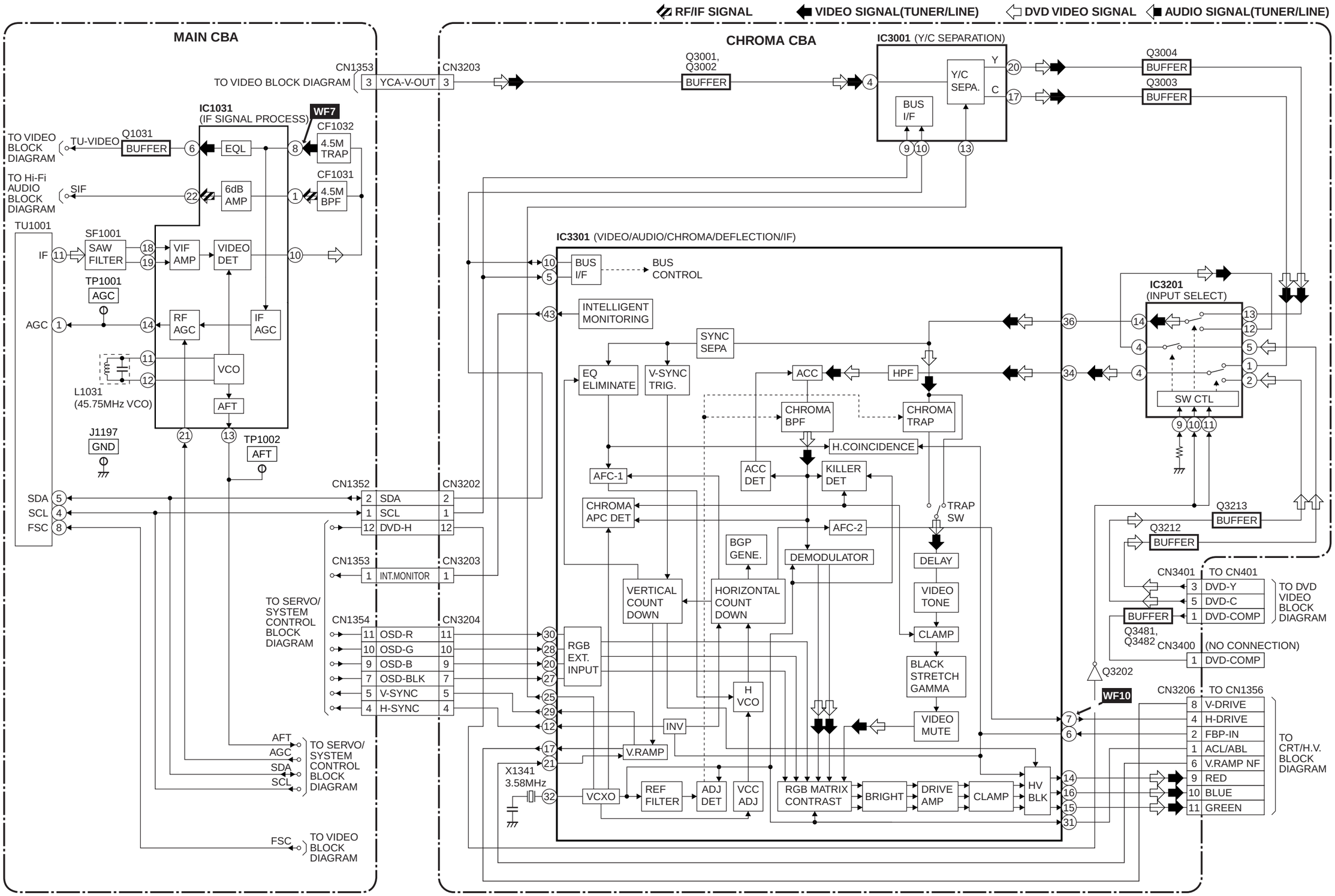
Audio Block Diagram



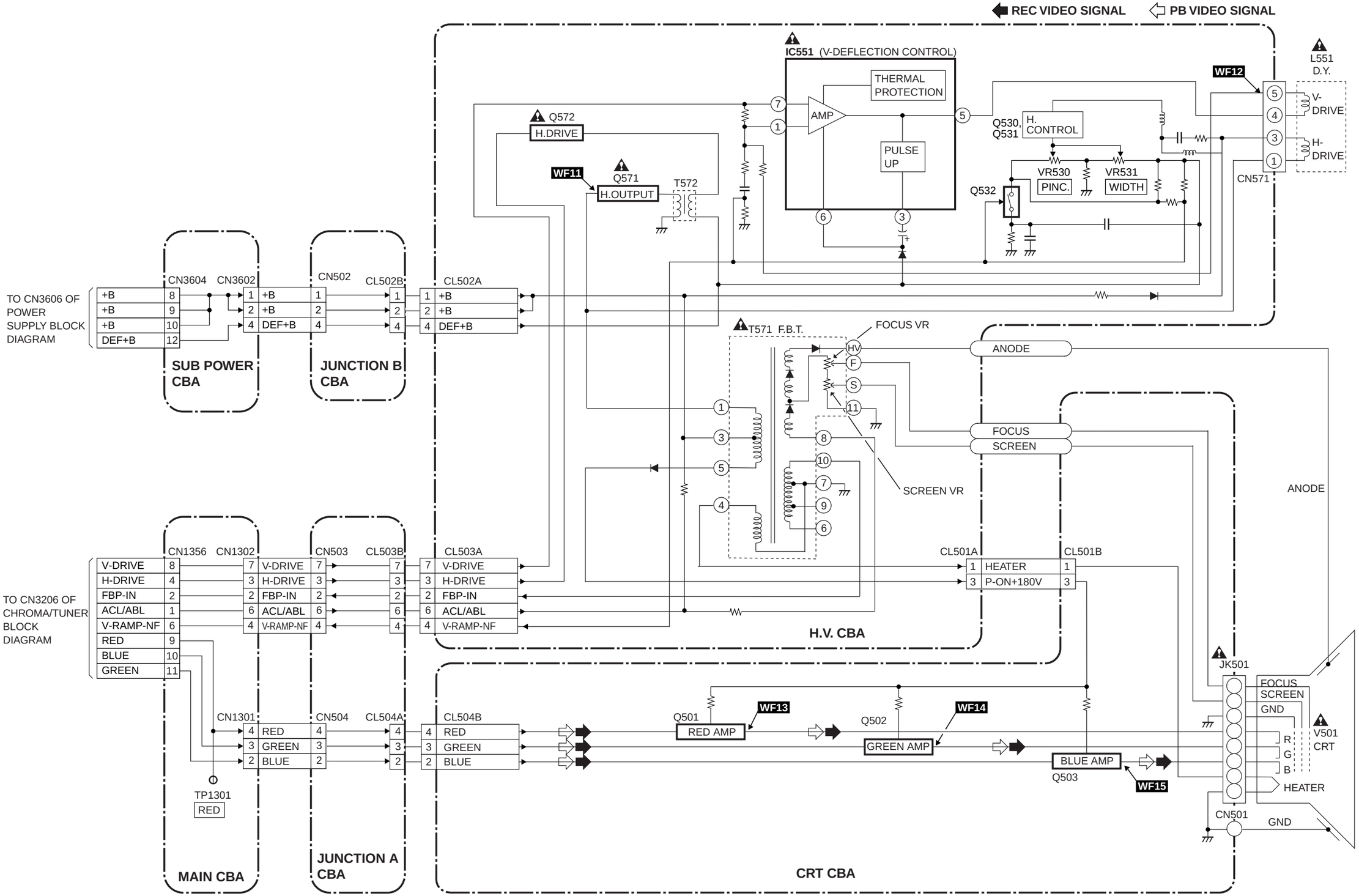
Hi-Fi Audio Block Diagram



Chroma/Tuner Block Diagram



CRT/H.V. Block Diagram



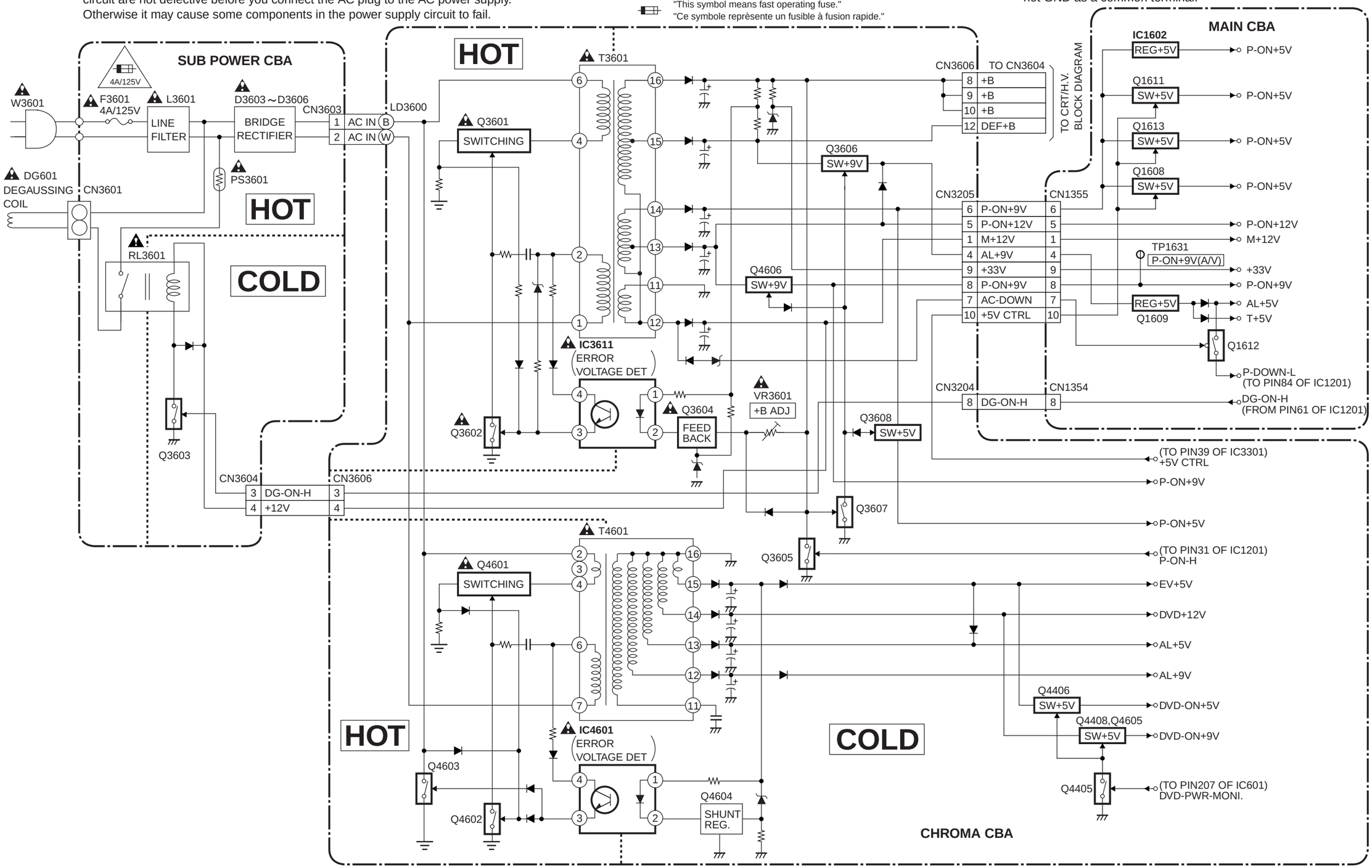
Power Supply Block Diagram

CAUTION !
Fixed voltage power supply circuit is used in this unit.
If Main Fuse (F601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

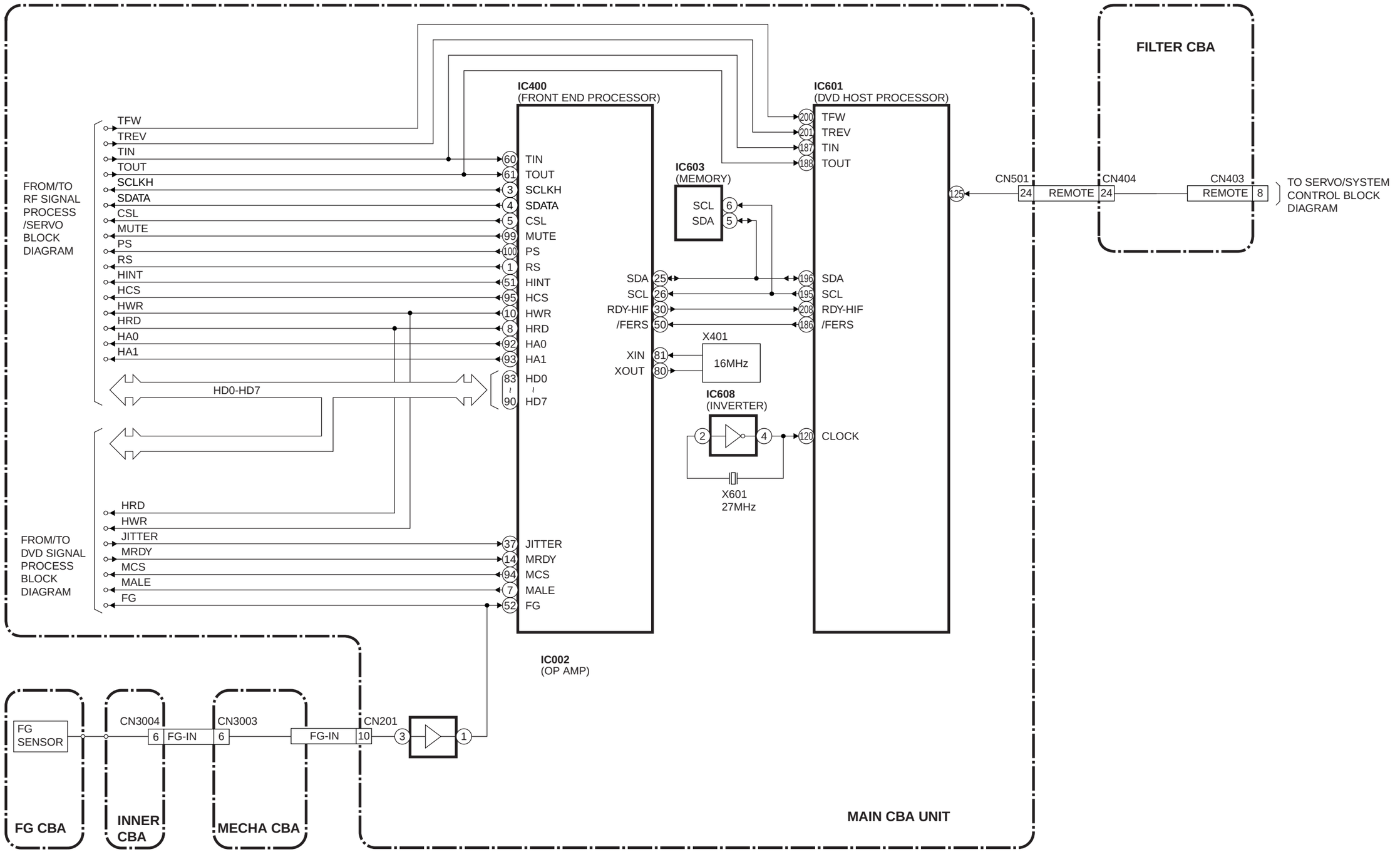
4A/125V

CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES
D'INCELE N'UTILISER QUE DES FUSIBLE DE MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

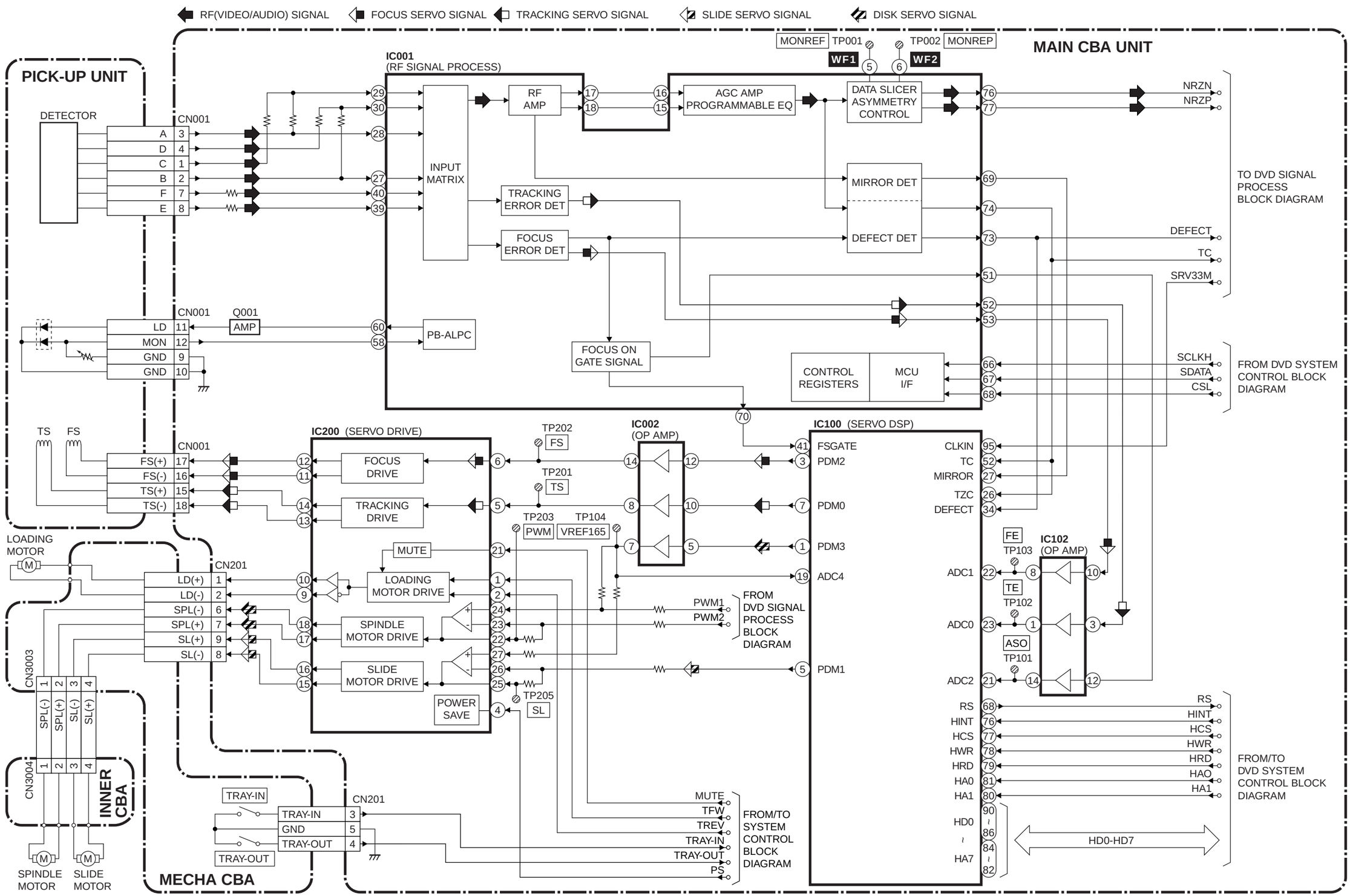
NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



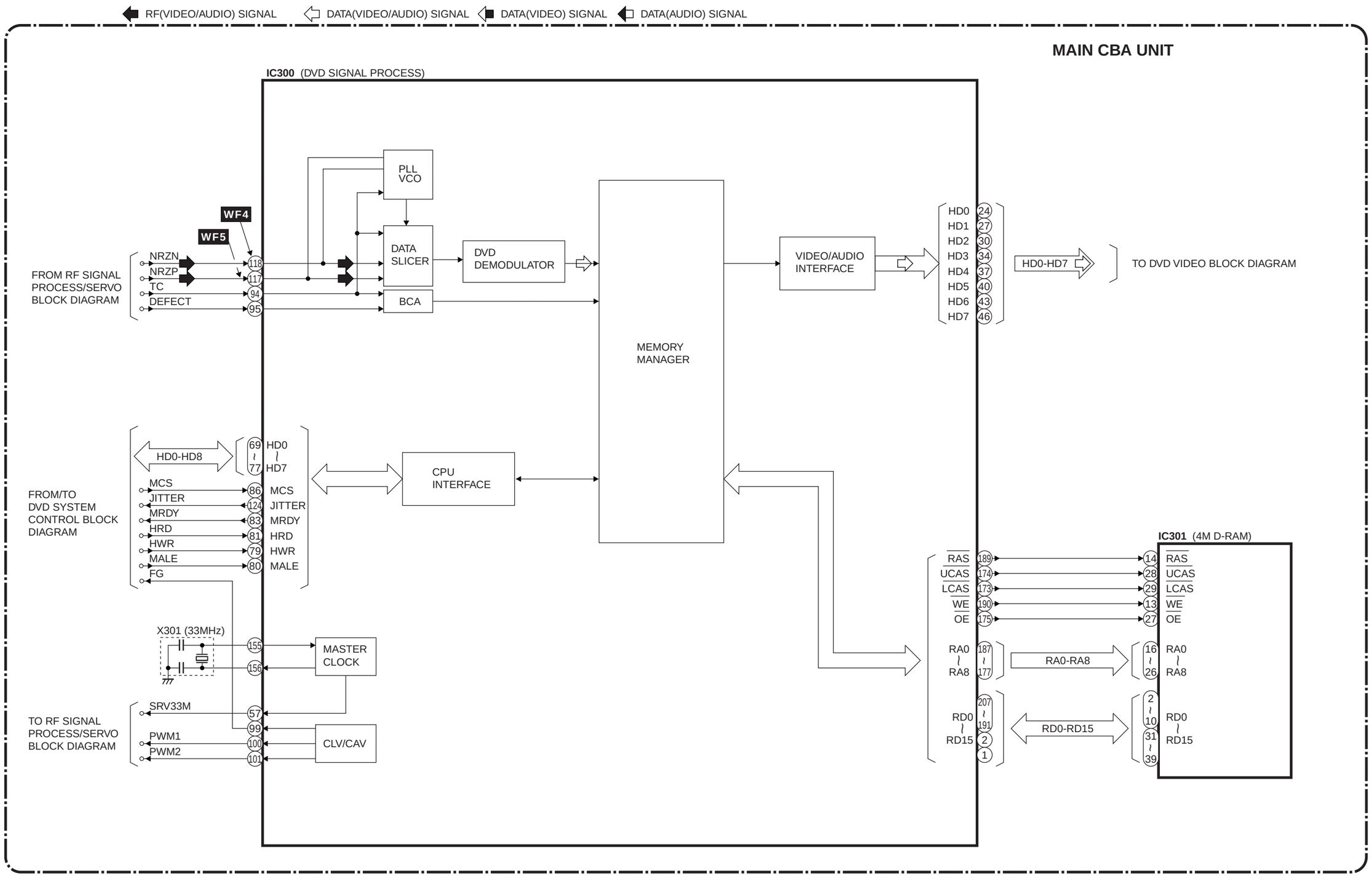
DVD System Control Block Diagram



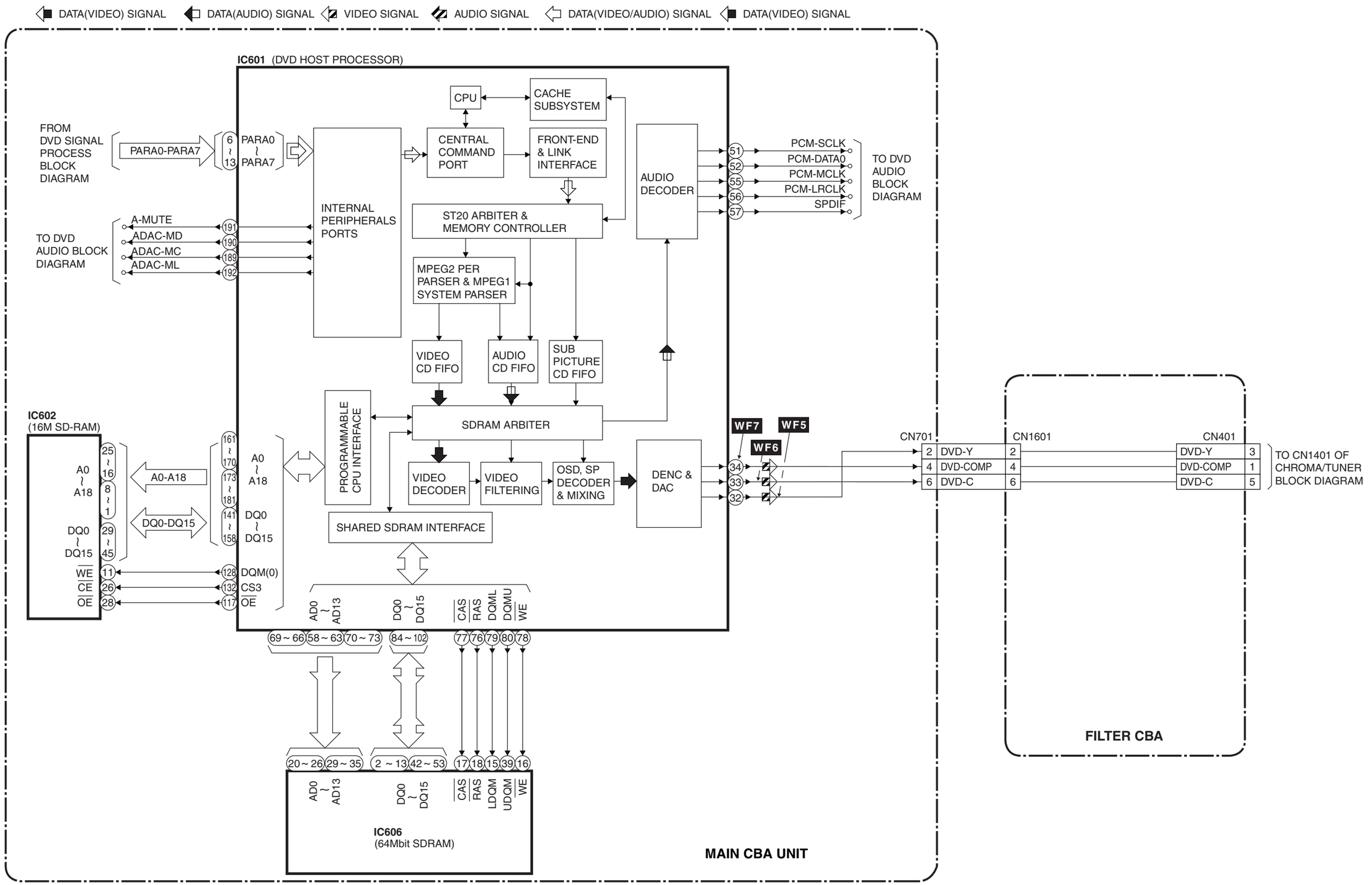
RF Signal Process/Servo Block Diagram



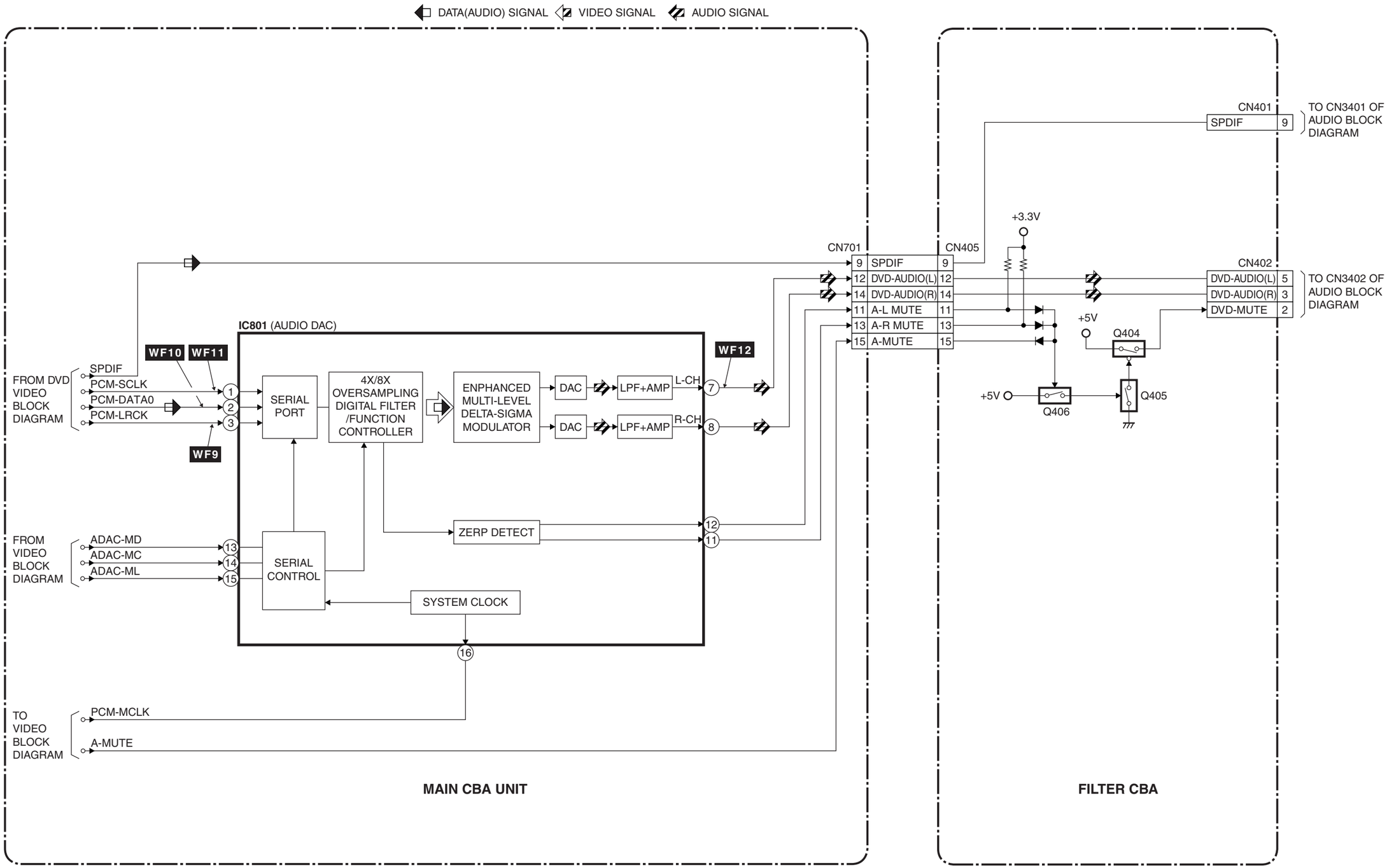
DVD Signal Process Block Diagram



DVD Video Block Diagram



DVD Audio Block Diagram



SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

Warning

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark " ⚠ " in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Note:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K=10^3$, $M=10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P=10^{-6}\mu F$).
5. All voltages are DC voltages unless otherwise specified.

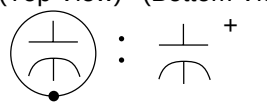
Capacitor Temperature Markings

Mark	Capacity change rate	Standard temperature	Temperature range
(B)	±10%	20℃	-25~+85℃
(F)	+30 -80%	20℃	-25~+85℃
(SR)	±15%	20℃	-25~+85℃
(Z)	+30 -80%	20℃	-10~+70℃

Capacitors and transistors are represented by the following symbols.

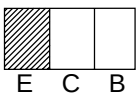
CBA Symbols

(Top View) (Bottom View)



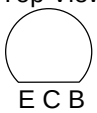
: Electrolytic Capacitor

(Bottom View)



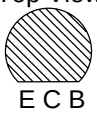
: Transistor or Digital Transistor

(Top View)



NPN Transistor

(Top View)



PNP Transistor

(Top View)

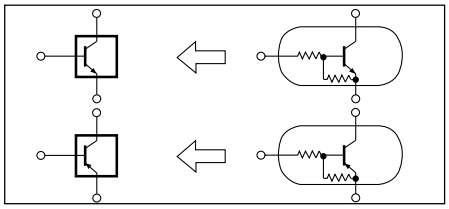
NPN Digital Transistor

(Top View)

PNP Digital Transistor

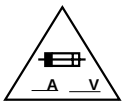
Schematic Diagram Symbols

Digital Transistor



LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. **CAUTION:**



FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

2. **CAUTION:**

This symbol means fast operating fuse.
Ce symbole reprèsente un fusible à fusion rapide.

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. **Note:**

(1) Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.

(2) To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Wire Connectors

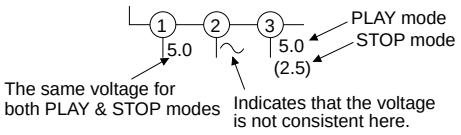
(1) Prefix symbol "CN" means "connector" (can disconnect and reconnect).

(2) Prefix symbol "CL" means "wire-solder holes of the PCB" (wire is soldered directly).

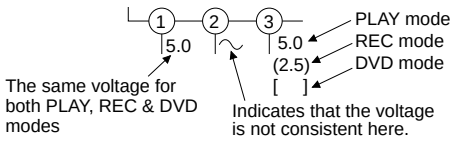
5. Note: Mark "•" is a leadless (chip) component.

6. Voltage indications for PLAY mode on the schematics are as shown below:

< DVD Section >



< TV/VCR Section >



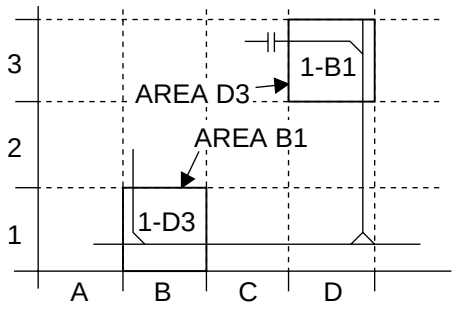
Unit: Volts

7. How to read converged lines

1-D3
Distinction Area
Line Number
(1 to 3 digits)

Examples:

1. "1-D3" means that line number "1" goes to area "D3".
2. "1-B1" means that line number "1" goes to area "B1".



8. Test Point Information

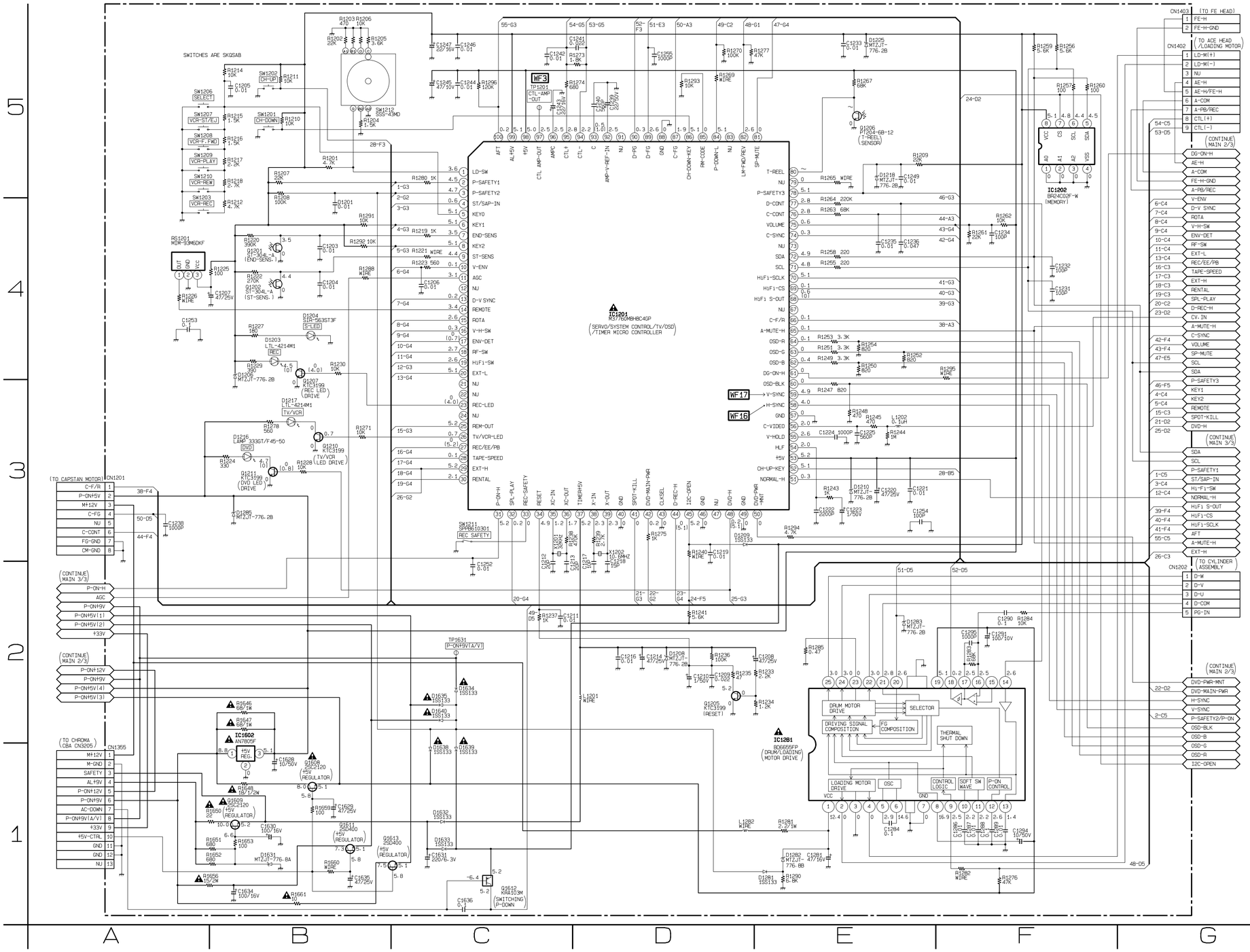
: Indicates a test point with a jumper wire across a hole in the PCB.

: Used to indicate a test point with a component lead on foil side.

: Used to indicate a test point with no test pin.

: Used to indicate a test point with a test pin.

Main 1/3 Schematic Diagram < TV/VCR Section >



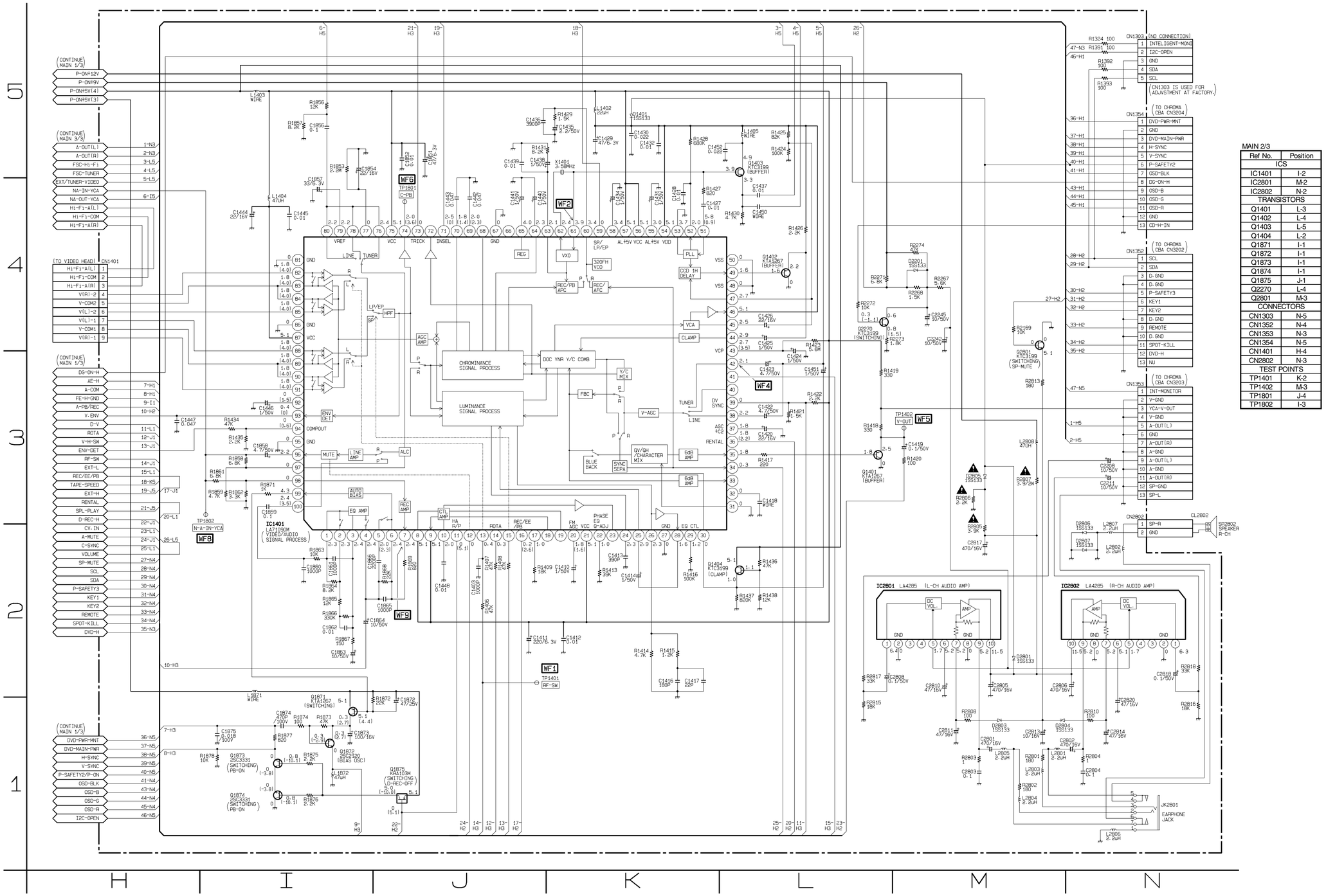
MAIN 1/3	
Ref No.	Position
ICS	
IC1201	D-4
IC1202	F-5
IC1281	E-1
IC1602	B-1
TRANSISTORS	
Q1201	B-4
Q1202	B-4
Q1205	D-2
Q1206	E-5
Q1207	B-3
Q1210	B-3
Q1211	B-3
Q1608	B-1
Q1609	B-1
Q1611	B-1
Q1612	C-1
Q1613	C-1
CONNECTORS	
CN1201	A-3
CN1202	G-2
CN1355	A-1
CN1402	G-5
CN1403	G-5
TEST POINTS	
TP1201	C-5
TP1631	C-2

A5	B5	C5	D5	E5	F5	G5
A4	B4	C4	D4	E4	F4	G4
A3	B3	C3	D3	E3	F3	G3
A2	B2	C2	D2	E2	F2	G2
A1	B1	C1	D1	E1	F1	G1

REC Audio Signal

PB Audio Signal

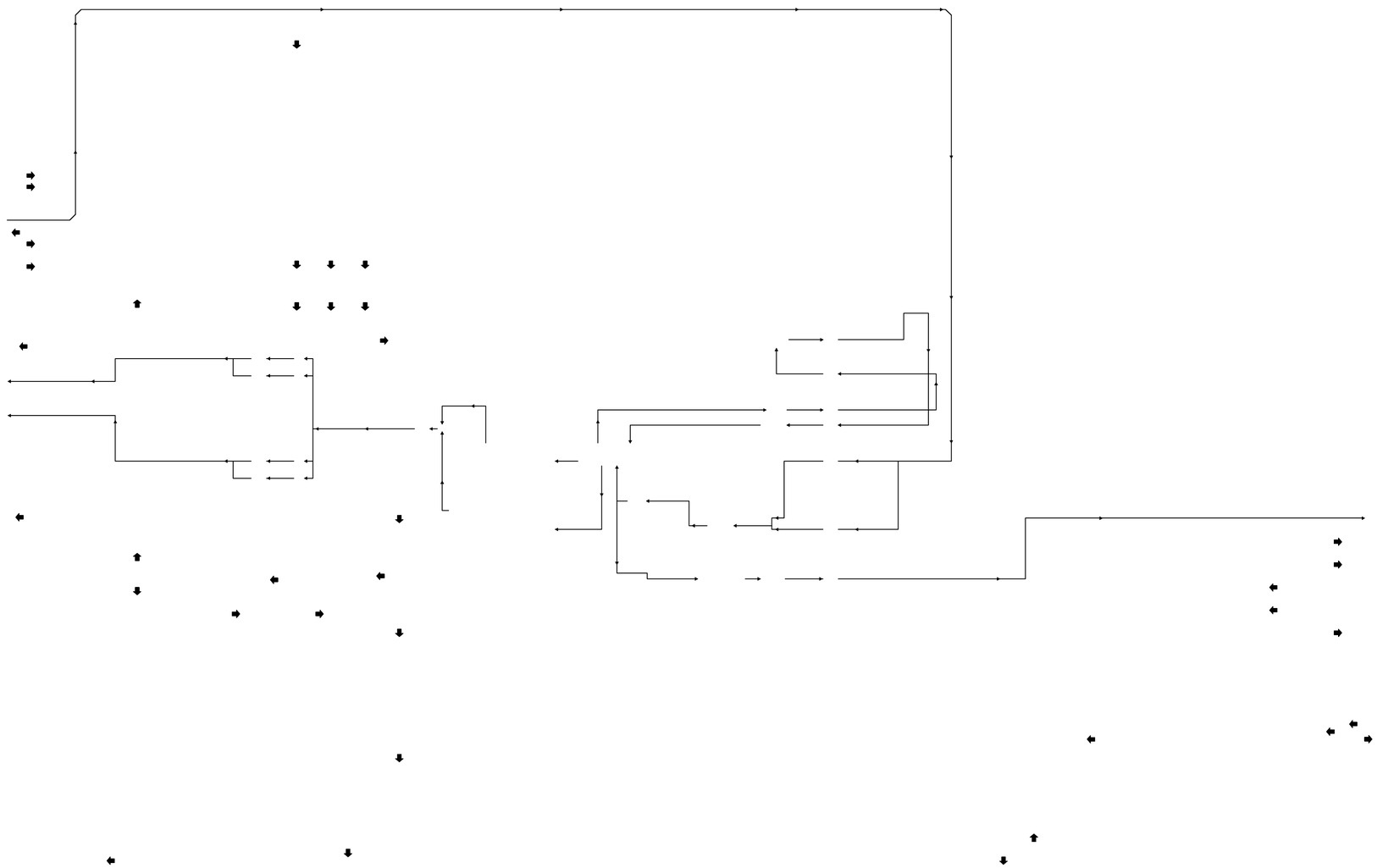
Main 2/3 Schematic Diagram < TV/VCR Section >



MAIN 2/3	
Ref No.	Position
ICS	
IC1401	I-2
IC2801	M-2
IC2802	N-2
TRANSISTORS	
Q1401	L-3
Q1402	L-4
Q1403	L-5
Q1404	L-2
Q1871	I-1
Q1872	I-1
Q1873	I-1
Q1874	I-1
Q1875	J-1
Q2270	L-4
Q2801	M-3
CONNECTORS	
CN1303	N-5
CN1352	N-4
CN1353	N-3
CN1354	N-5
CN1401	H-4
CN2802	N-3
TEST POINTS	
TP1401	K-2
TP1402	M-3
TP1801	J-4
TP1802	I-3

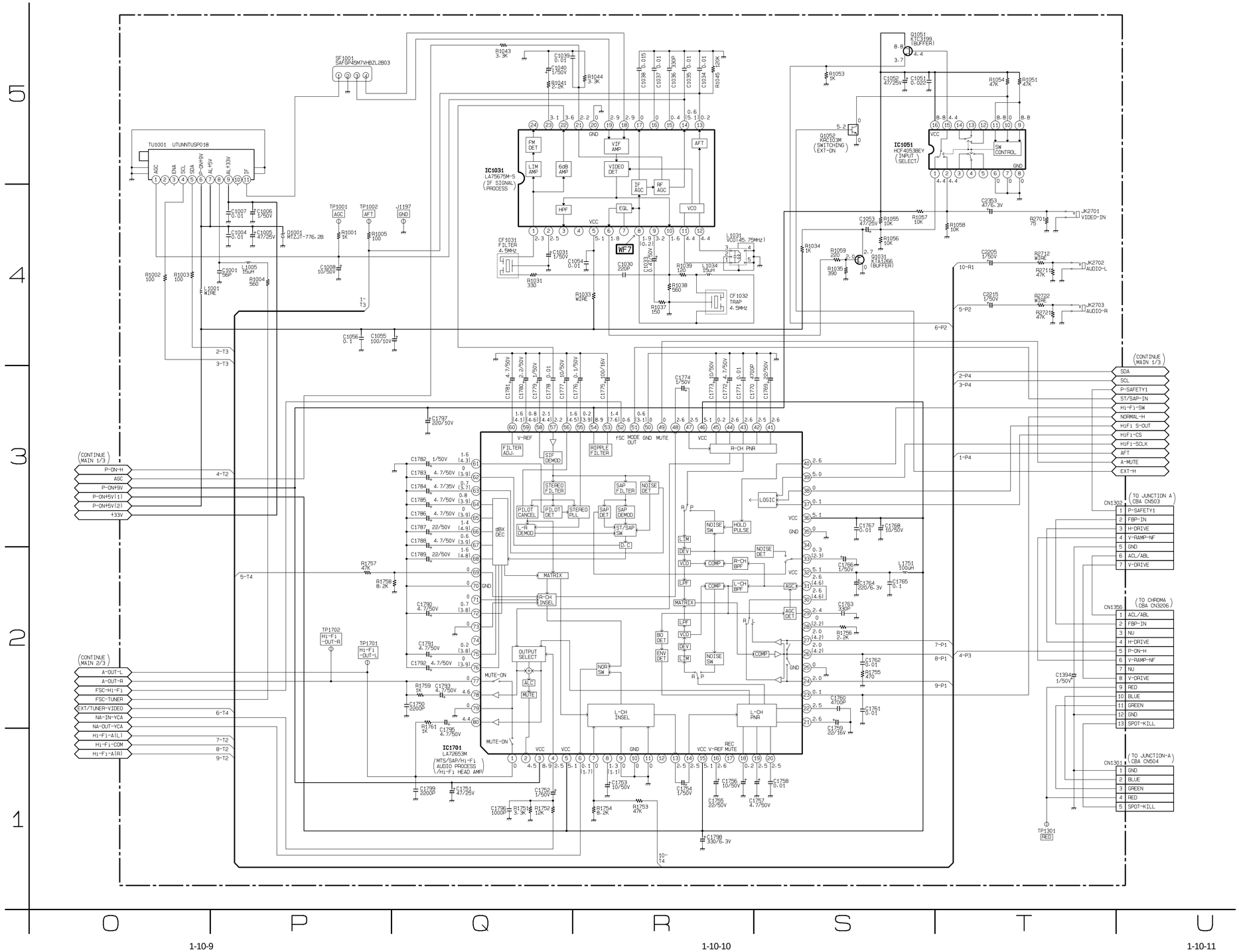
H5	I5	J5	K5	L5	M5	N5
H4	I4	J4	K4	L4	M4	N4
H3	I3	J3	K3	L3	M3	N3
H2	I2	J2	K2	L2	M2	N2
H1	I1	J1	K1	L1	M1	N1

REC Video Signal
REC Audio Signal



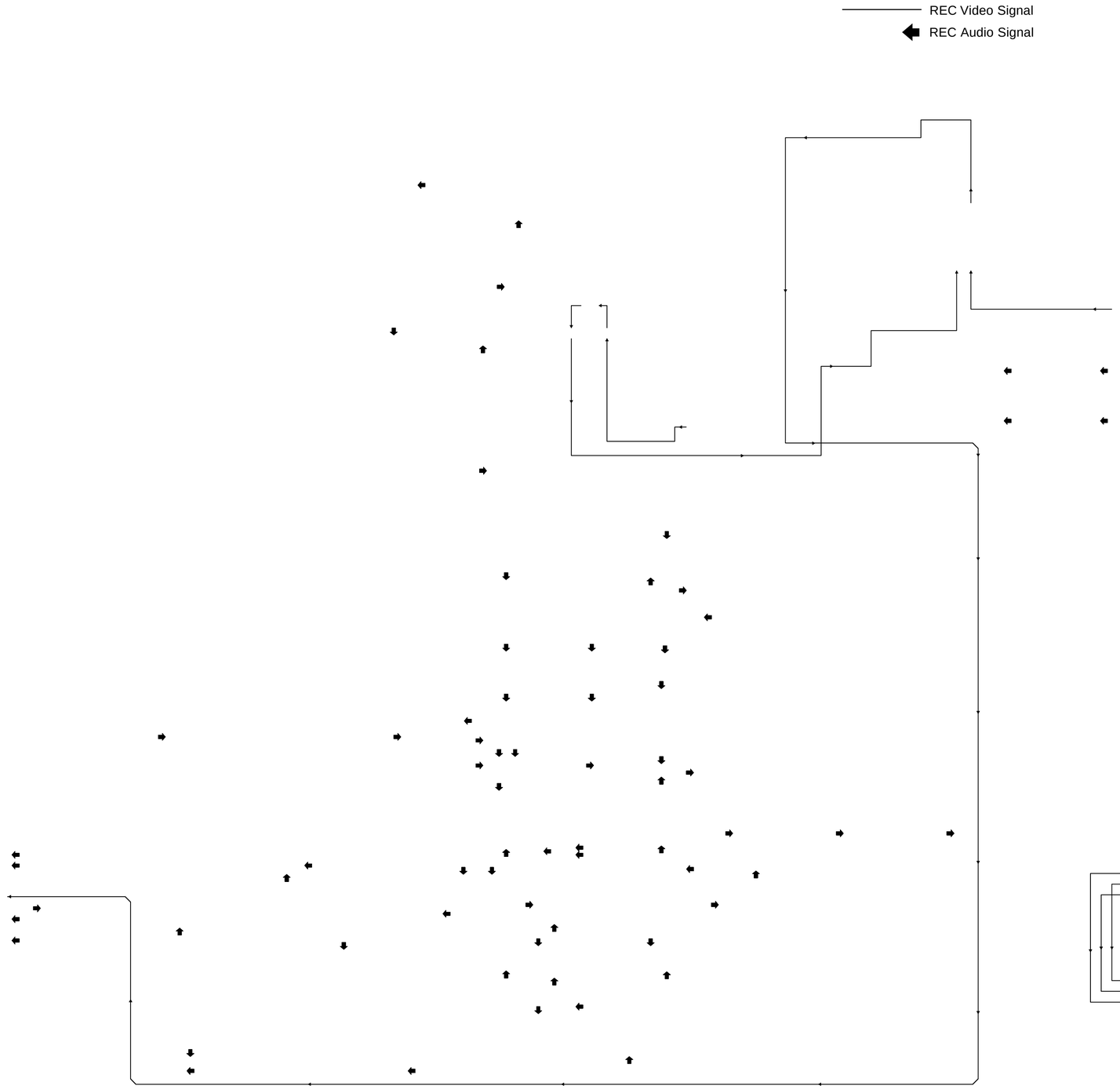
PB Video Signal
PB Audio Signal
DVD Audio Signal

Main 3/3 Schematic Diagram < TV/VCR Section >



MAIN 3/3	
Ref No.	Position
ICS	
IC1031	O-5
IC1051	S-5
IC1701	O-1
TRANSISTORS	
Q1031	S-4
Q1051	S-5
Q1052	S-5
CONNECTORS	
CN1301	U-1
CN1302	U-3
CN1356	U-2
TEST POINTS	
TP1001	P-4
TP1002	P-4
TP1301	T-1
TP1701	P-2
TP1702	P-2

O5	P5	Q5	R5	S5	T5	U5
O4	P4	Q4	R4	S4	T4	U4
O3	P3	Q3	R3	S3	T3	U3
O2	P2	Q2	R2	S2	T2	U2
O1	P1	Q1	R1	S1	T1	U1


REC Video Signal
REC Audio Signal

PB Video Signal

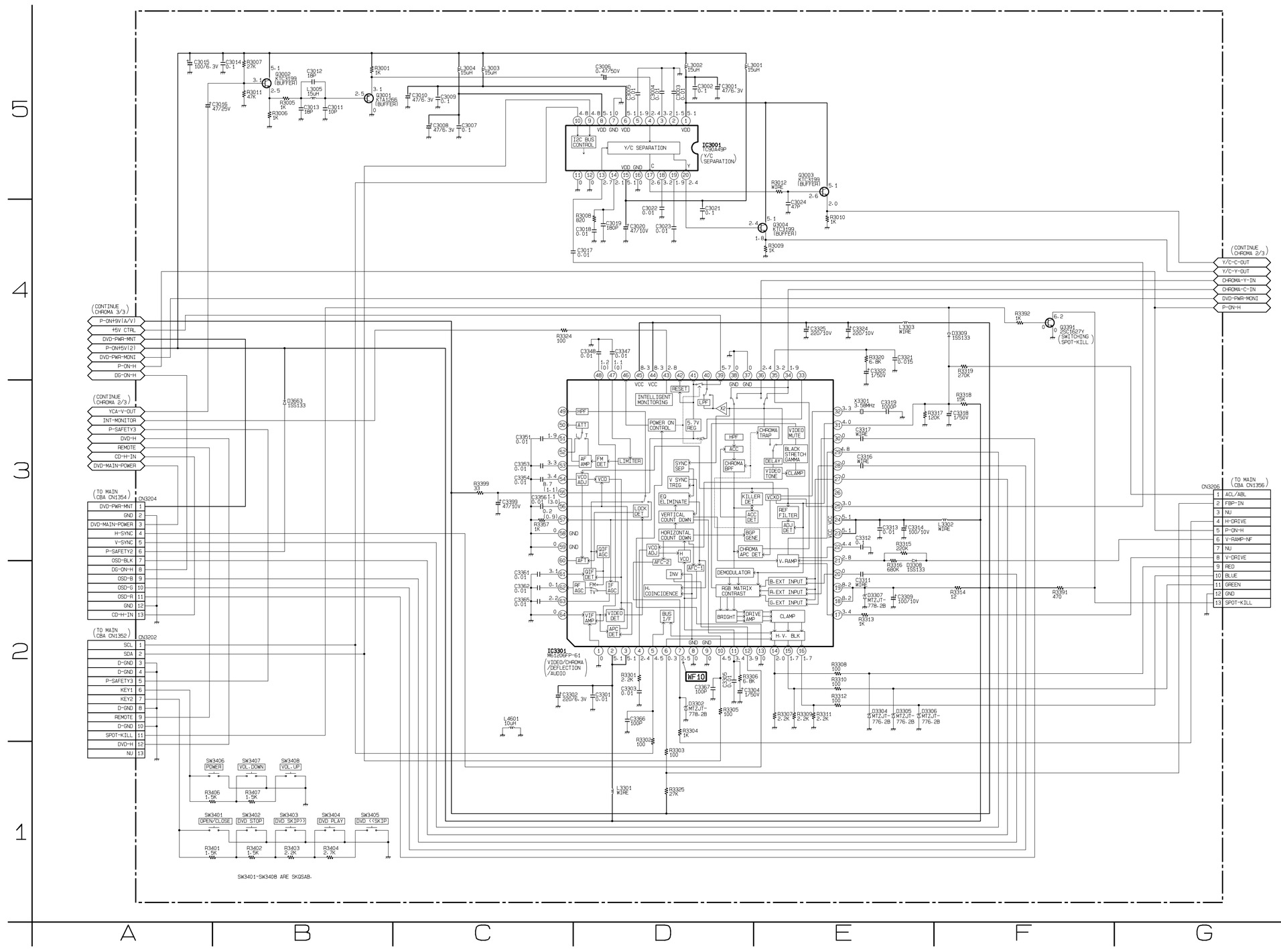
DVD Video Signal

PB Audio Signal

Chroma 1/3 Schematic Diagram < TV/VCR Section >

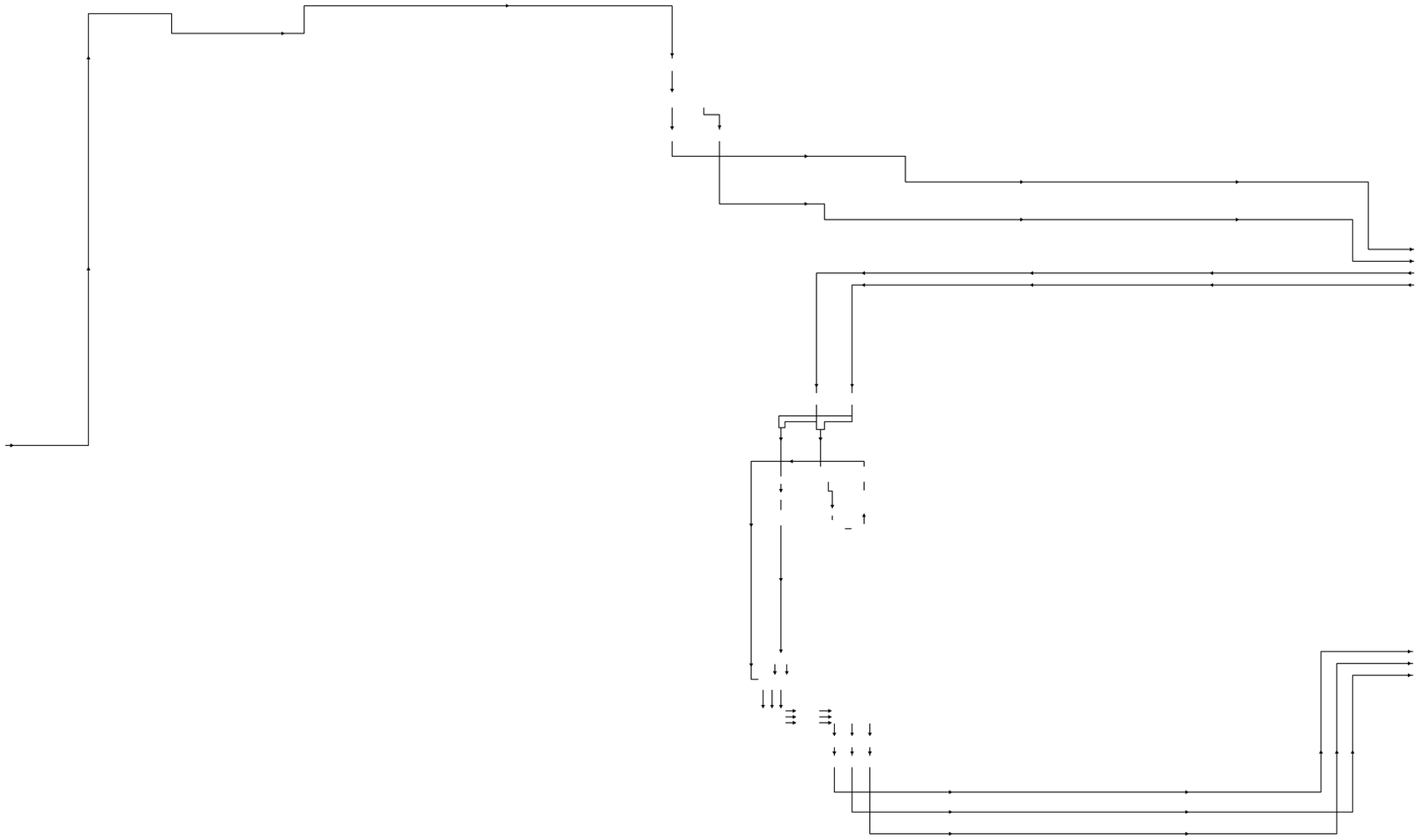
CHROMA 1/3

Ref No.	Position
ICS	
IC3001	D-5
IC3301	C-2
TRANSISTORS	
Q3001	B-5
Q3002	B-5
Q3003	E-5
Q3004	E-4
Q3391	F-4
CONNECTORS	
CN3202	A-2
CN3204	A-3
CN3206	G-3



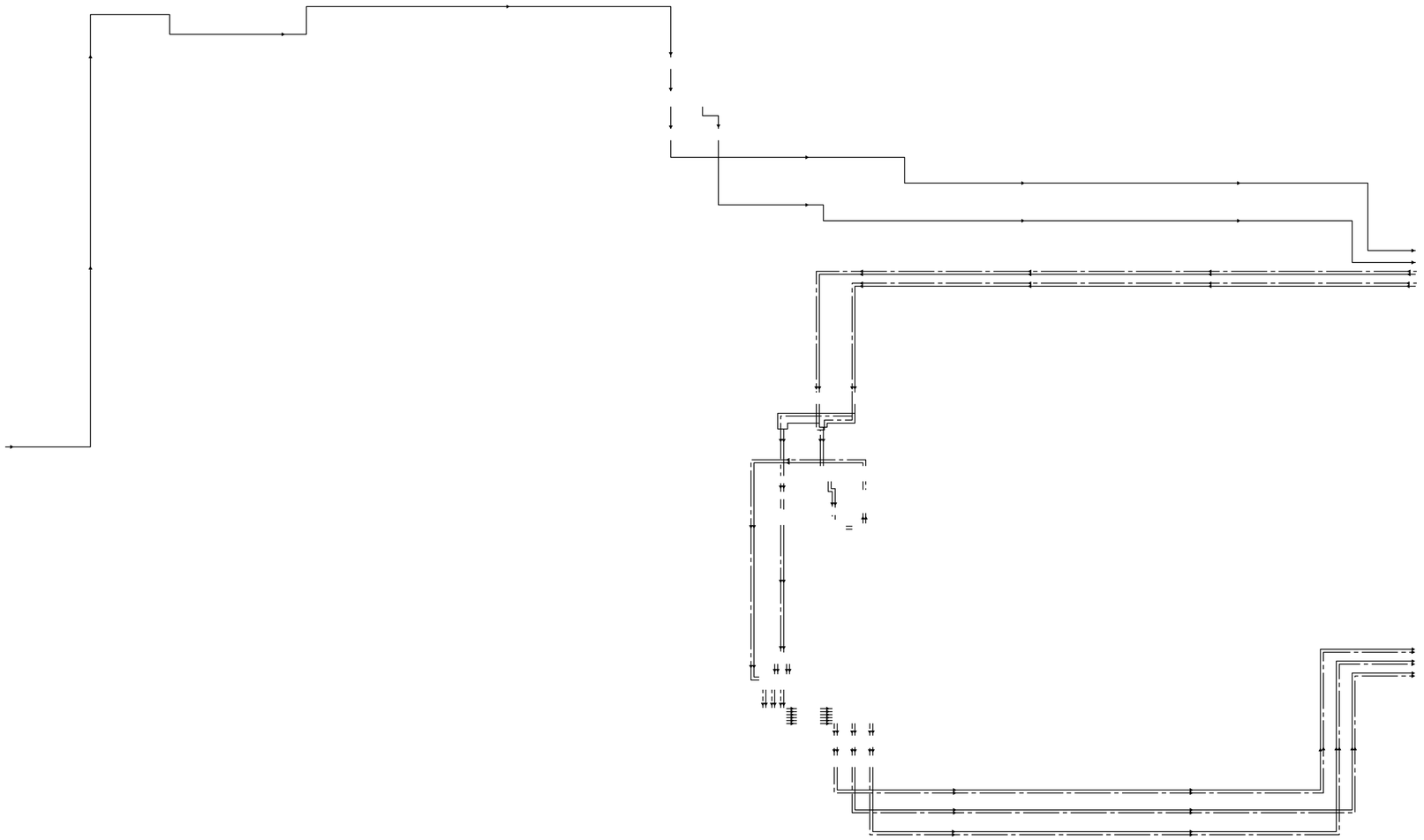
A5	B5	C5	D5	E5	F5	G5
A4	B4	C4	D4	E4	F4	G4
A3	B3	C3	D3	E3	F3	G3
A2	B2	C2	D2	E2	F2	G2
A1	B1	C1	D1	E1	F1	G1

REC Video Signal

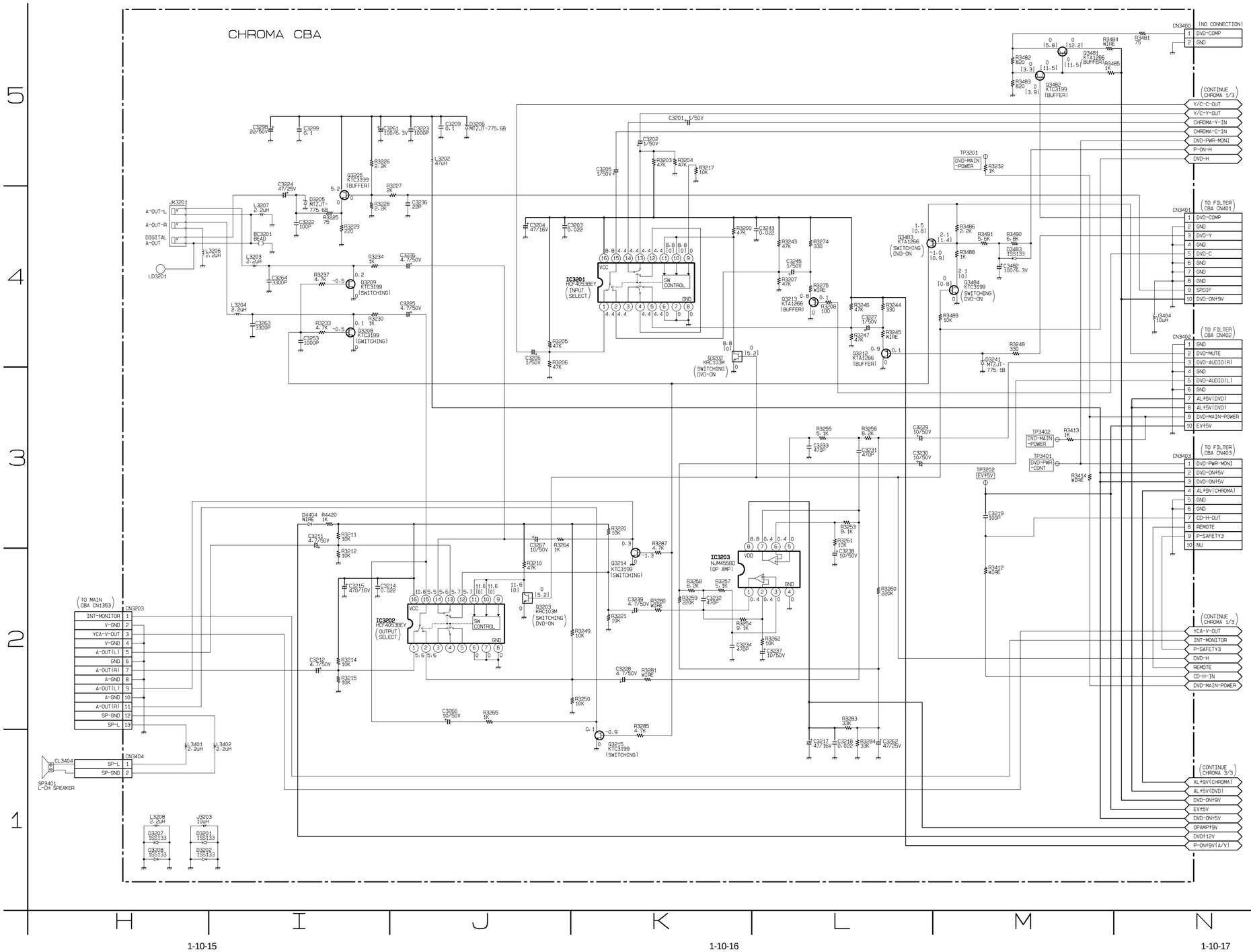


PB Video Signal

DVD Video Signal



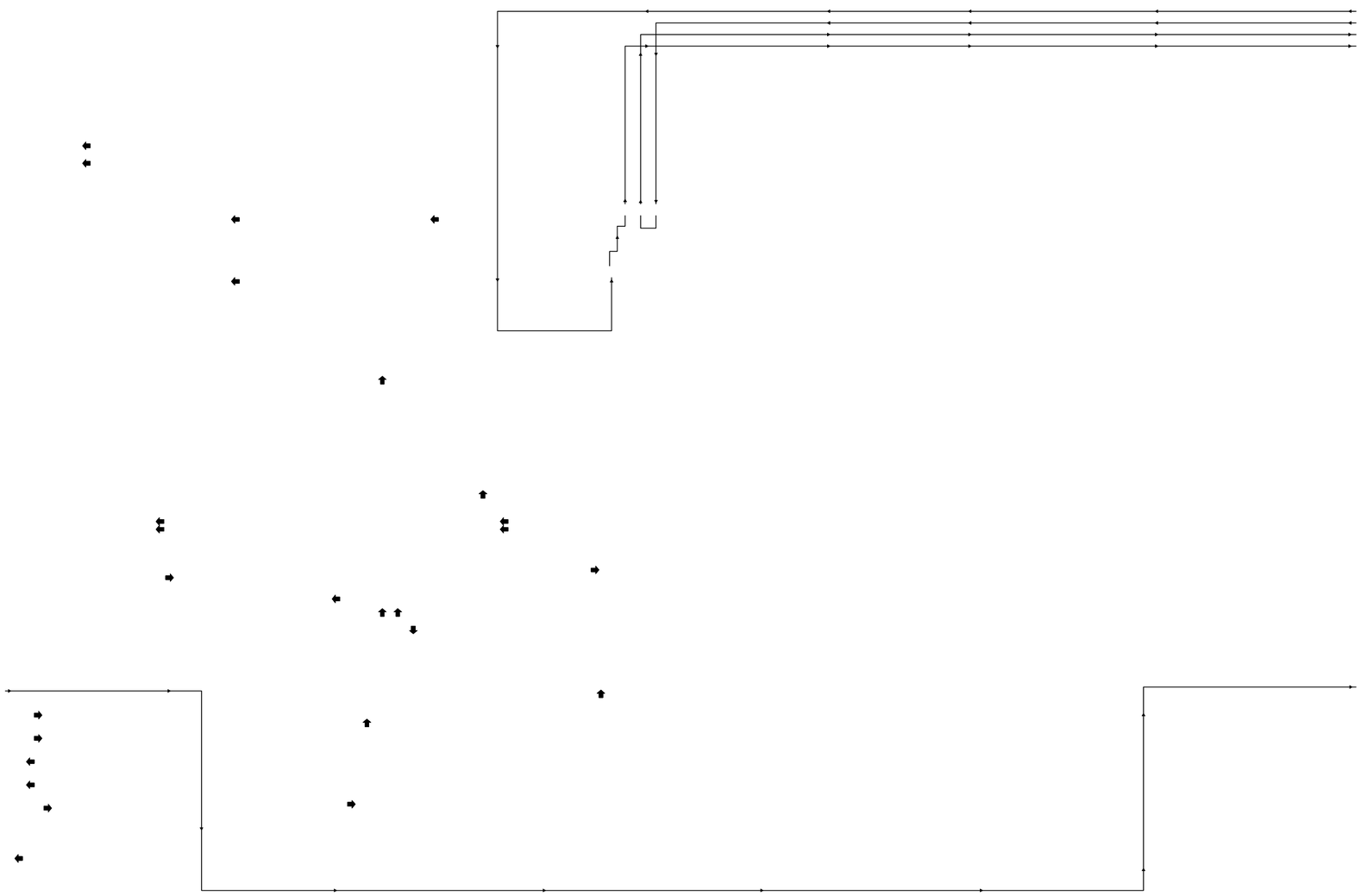
Chroma 2/3 Schematic Diagram < TV/VCR Section >

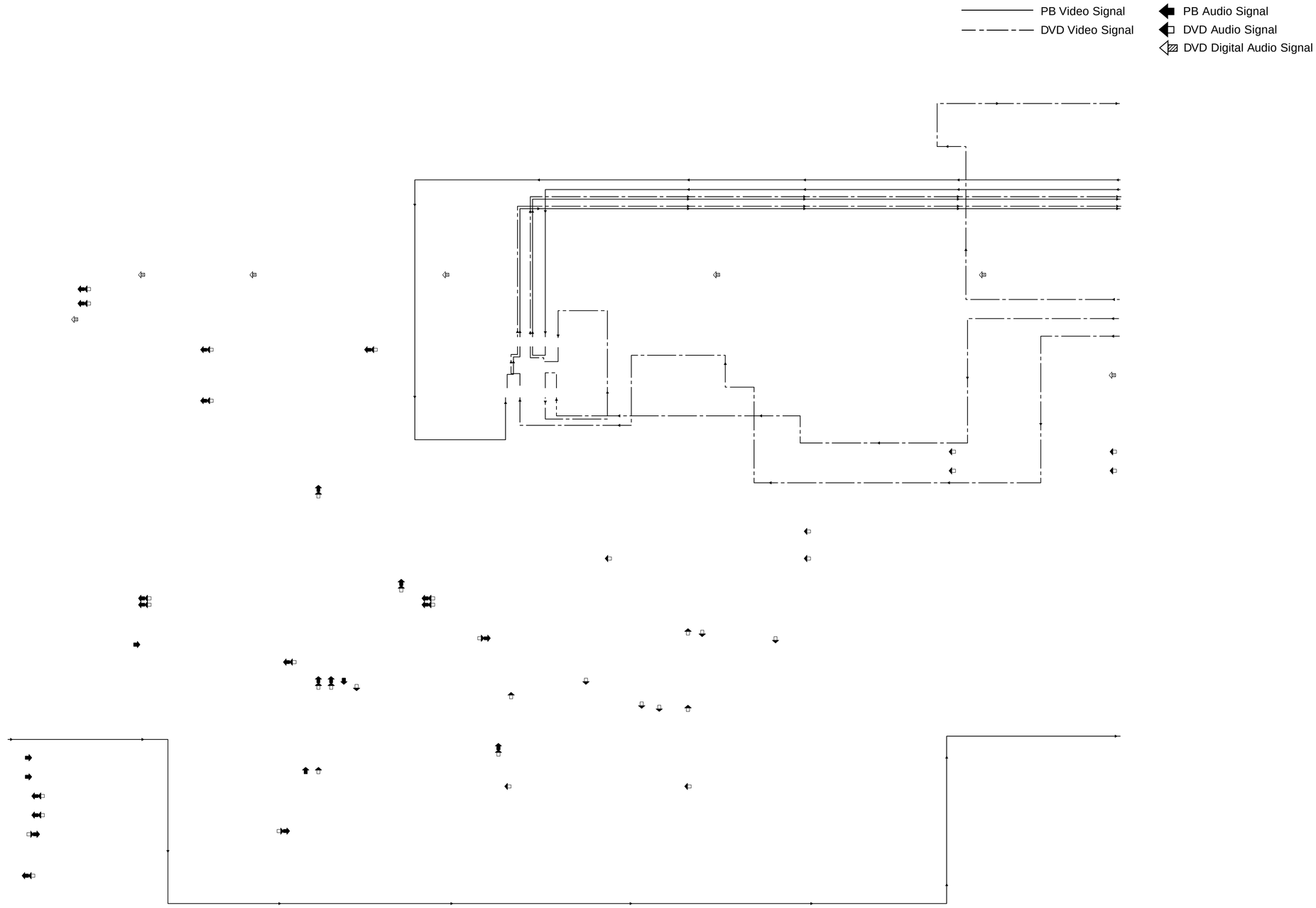


CHROMA 2/3	
Ref No.	Position
ICS	
IC3201	K-4
IC3202	J-2
IC3203	K-2
TRANSISTORS	
Q3202	K-4
Q3203	J-2
Q3205	I-4
Q3208	I-4
Q3209	I-4
Q3212	L-4
Q3213	L-4
Q3214	K-2
Q3215	K-1
Q3481	M-5
Q3482	M-5
Q3483	L-4
Q3484	M-4
CONNECTORS	
CN3203	H-2
CN3400	N-5
CN3401	N-4
CN3402	N-4
CN3403	N-3
CN3404	H-1
TEST POINTS	
TP3201	M-5
TP3202	M-3
TP3401	M-3
TP3402	M-3

H5	I5	J5	K5	L5	M5	N5
H4	I4	J4	K4	L4	M4	N4
H3	I3	J3	K3	L3	M3	N3
H2	I2	J2	K2	L2	M2	N2
H1	I1	J1	K1	L1	M1	N1

REC Video Signal
REC Audio Signal




PB Video Signal
DVD Video Signal
PB Audio Signal
DVD Audio Signal
DVD Digital Audio Signal

Chroma 3/3 Schematic Diagram < TV/VCR Section >

CAUTION !
Fixed voltage power supply circuit is used in this unit.
If Main Fuse (F3601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

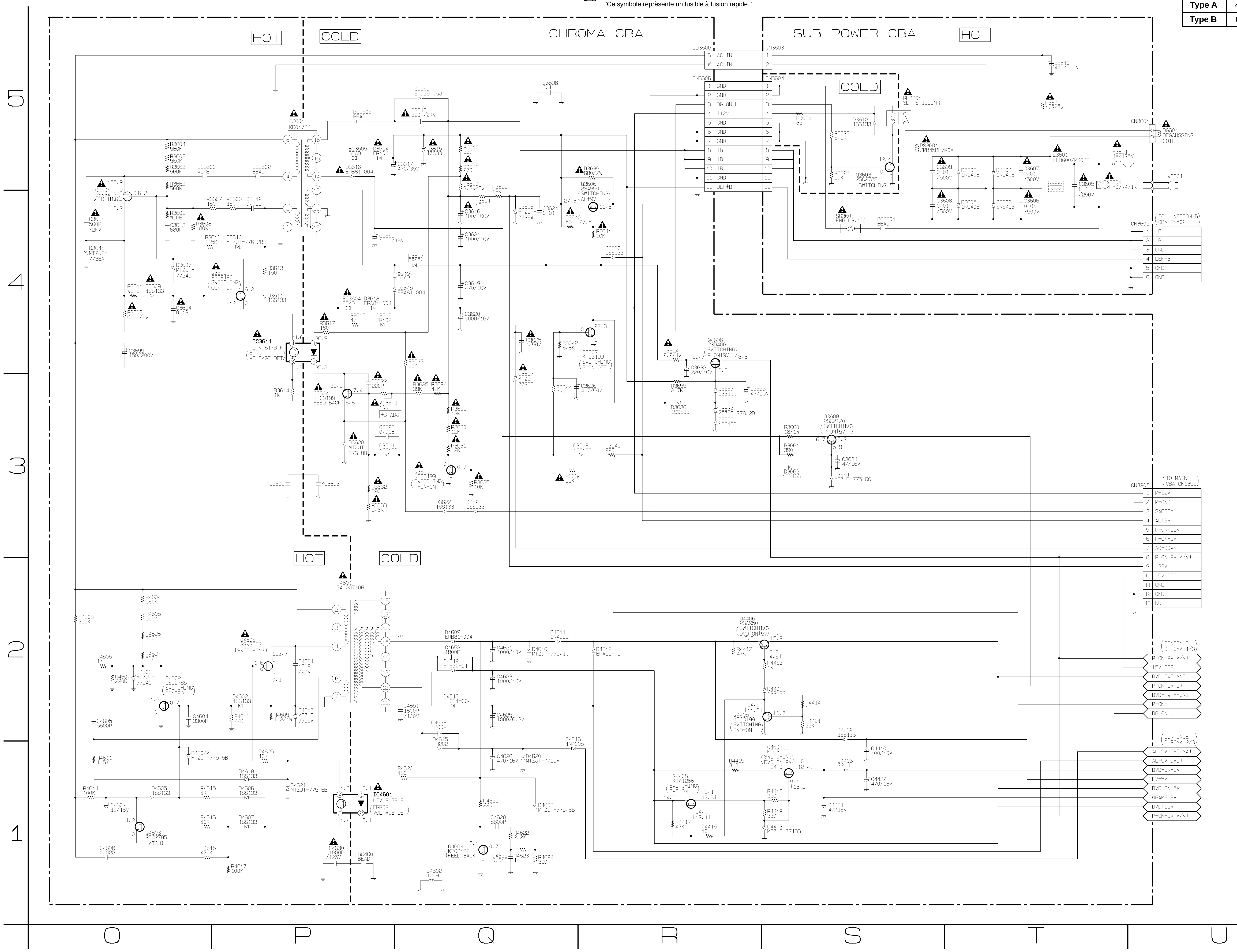
4A 125V

CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole reprèsente un fusible à fusion rapide."

NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

★ NOTE:
The capacitor (C3602, C3603) is either type A or type B. These two types are exchangeable and can be equally used whichever the model is. The difference between type A and type B is shown in the table below.

	C3602	C3603
Type A	4700pF	WIRE
Type B	0.01µF	0.01µF



CHROMA 3/3

Ref No.	Position
ICS	
IC3611	P-4
IC4601	P-1
TRANSISTORS	
Q3601	O-4
Q3602	P-4
Q3604	P-3
Q3605	Q-3
Q3606	R-4
Q3607	R-4
Q3608	S-3
Q4405	S-2
Q4406	S-2
Q4408	R-1
Q4601	P-2
Q4602	O-2
Q4603	O-1
Q4604	Q-1
Q4605	S-1
Q4606	R-4
CONNECTORS	
CN3205	U-3
CN3606	R-5
VARIABLE RESISTORS	
VR3601	P-3

VOLTAGE CHART (Power off mode)

Ref. No.	1	2	3	4
IC3611	11.9	10.8	0.3	2.4
IC4601	6.1	5.1	1.4	1.3

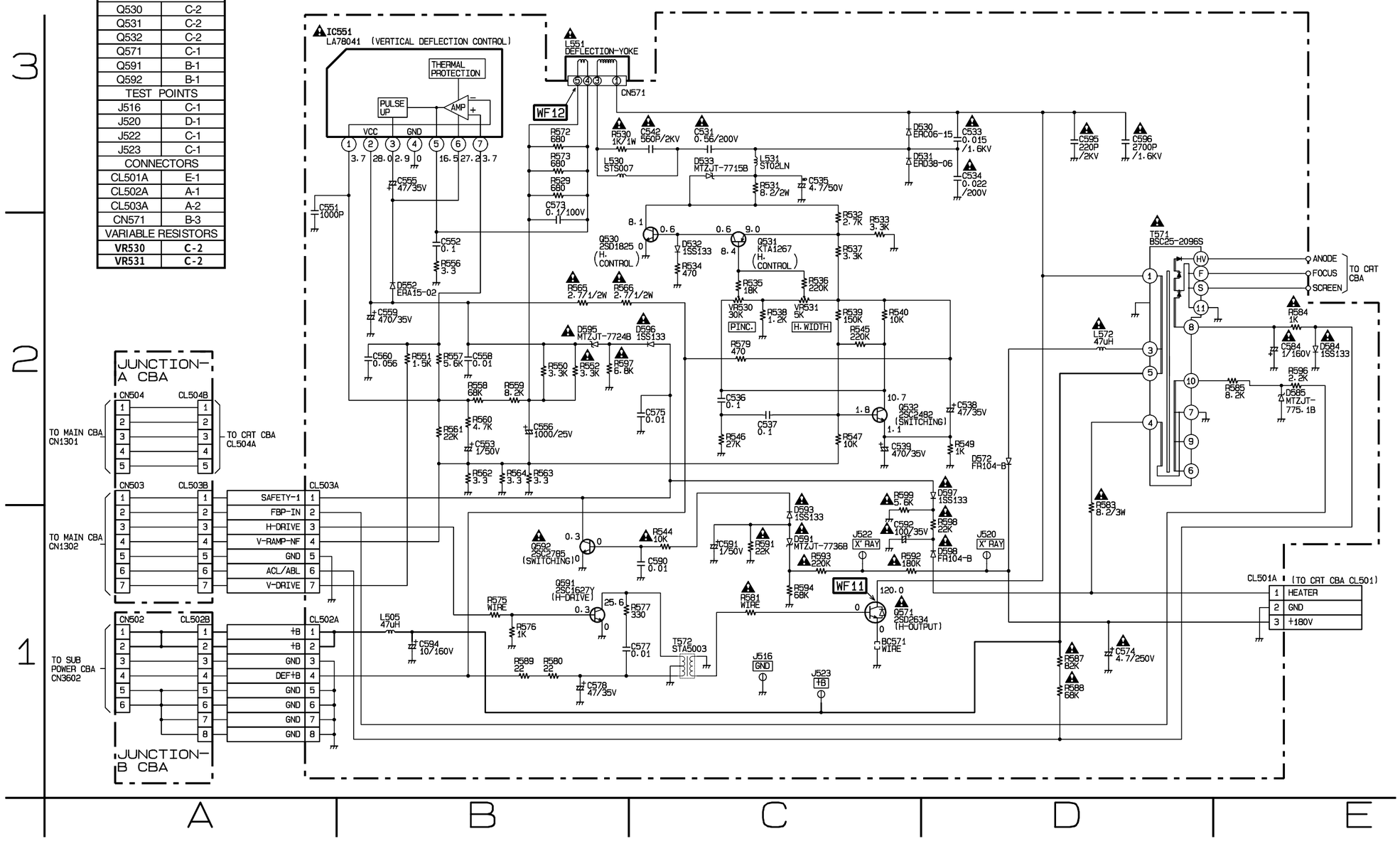
Ref. No.	S	D	G
Q3601	0	162.3	1.4
Q4601	0	164.7	1.6
Ref. No.	E	C	B
Q3602	0	1.4	0.3
Q3604	6.7	10.8	7.4
Q3605	0	7.9	0
Q3606	9.2	9.1	8.5
Q3607	0	0.4	0.8
Q3608	0.5	2.9	1.1
Q4405	0	14.0	0.1
Q4406	5.5	0.3	5.5
Q4408	14.1	0.1	14.0
Q4602	0	1.6	0.6
Q4603	0	0.2	0.2
Q4604	0	5.1	0.7
Q4605	0	14.1	0.1
Q4606	1.0	4.0	1.6

O5	P5	Q5	R5	S5	T5	U5
O4	P4	Q4	R4	S4	T4	U4
O3	P3	Q3	R3	S3	T3	U3
O2	P2	Q2	R2	S2	T2	U2
O1	P1	Q1	R1	S1	T1	U1

H.V. Schematic Diagram < TV/VCR Section >

H.V.

Ref No.	Position
ICS	
IC551	B-3
TRANSISTORS	
Q530	C-2
Q531	C-2
Q532	C-2
Q571	C-1
Q591	B-1
Q592	B-1
TEST POINTS	
J516	C-1
J520	D-1
J522	C-1
J523	C-1
CONNECTORS	
CL501A	E-1
CL502A	A-1
CL503A	A-2
CN571	B-3
VARIABLE RESISTORS	
VR530	**C-2**
VR531	**C-2**



A3	B3	C3	D3	E3
A2	B2	C2	D2	E2
A1	B1	C1	D1	E1

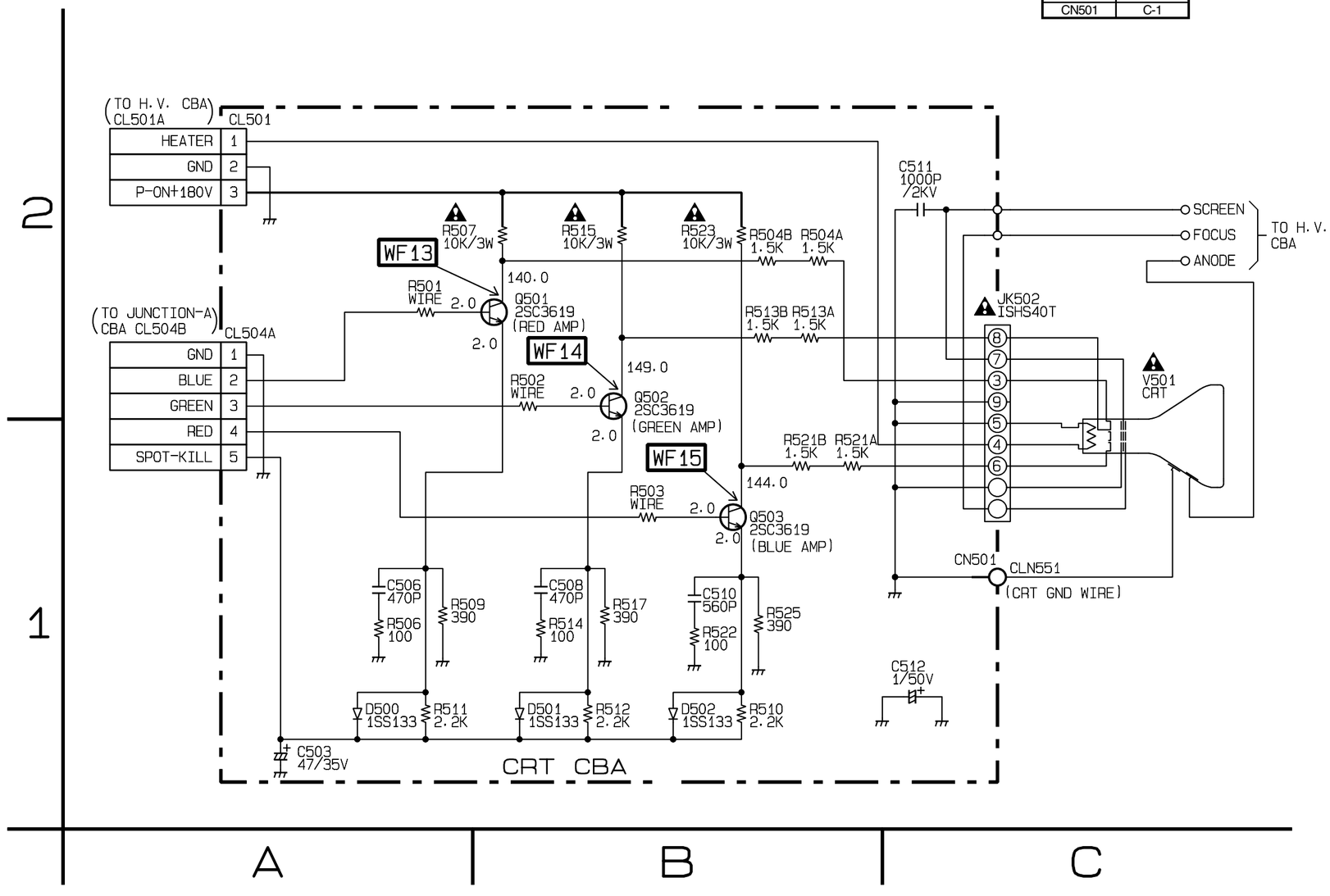
CRT Schematic Diagram < TV/VCR Section >

CRT

Ref No.	Position
TRANSISTORS	
Q501	B-2
Q502	B-2
Q503	B-1
CONNECTORS	
CL501	A-2
CL504A	A-2
CN501	C-1

FILTER

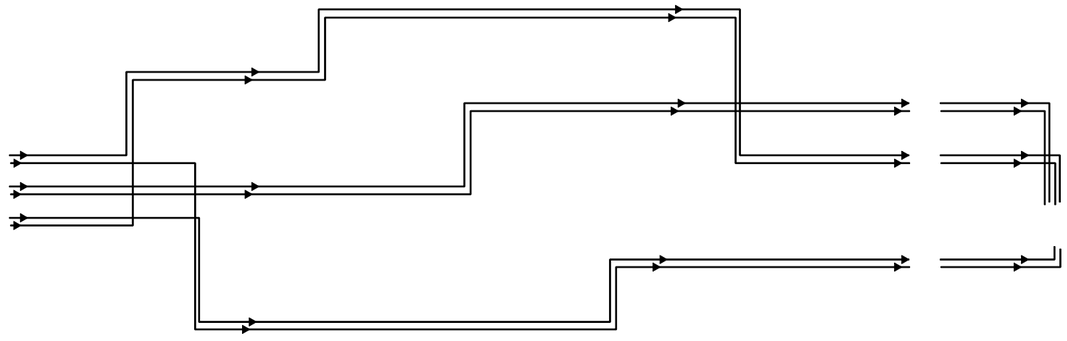
Ref No.	Position
ICS	
IC401	B-3
IC402	B-3
TRANSISTORS	
Q401	B-4
Q402	C-3
Q403	C-3
Q404	C-1
Q405	B-1
Q406	B-1
CONNECTORS	
CN401	C-2
CN402	C-1
CN403	C-4
CN404	A-4
CN405	A-2



A2 B2 C2

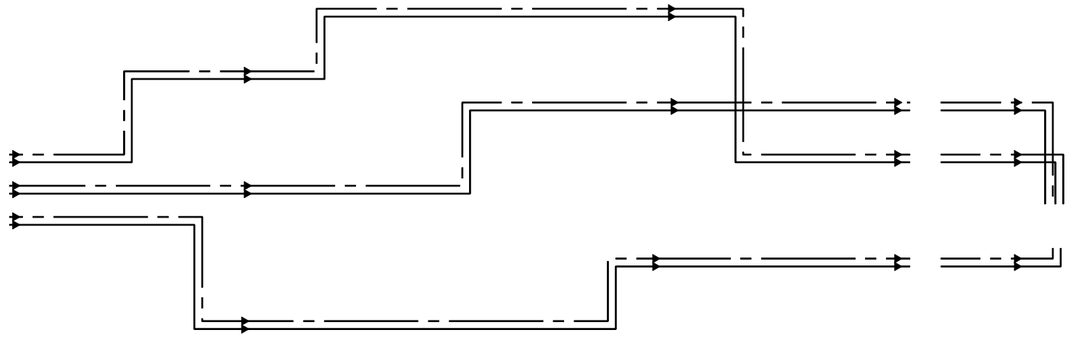
A1 B1 C1

REC Video Signal

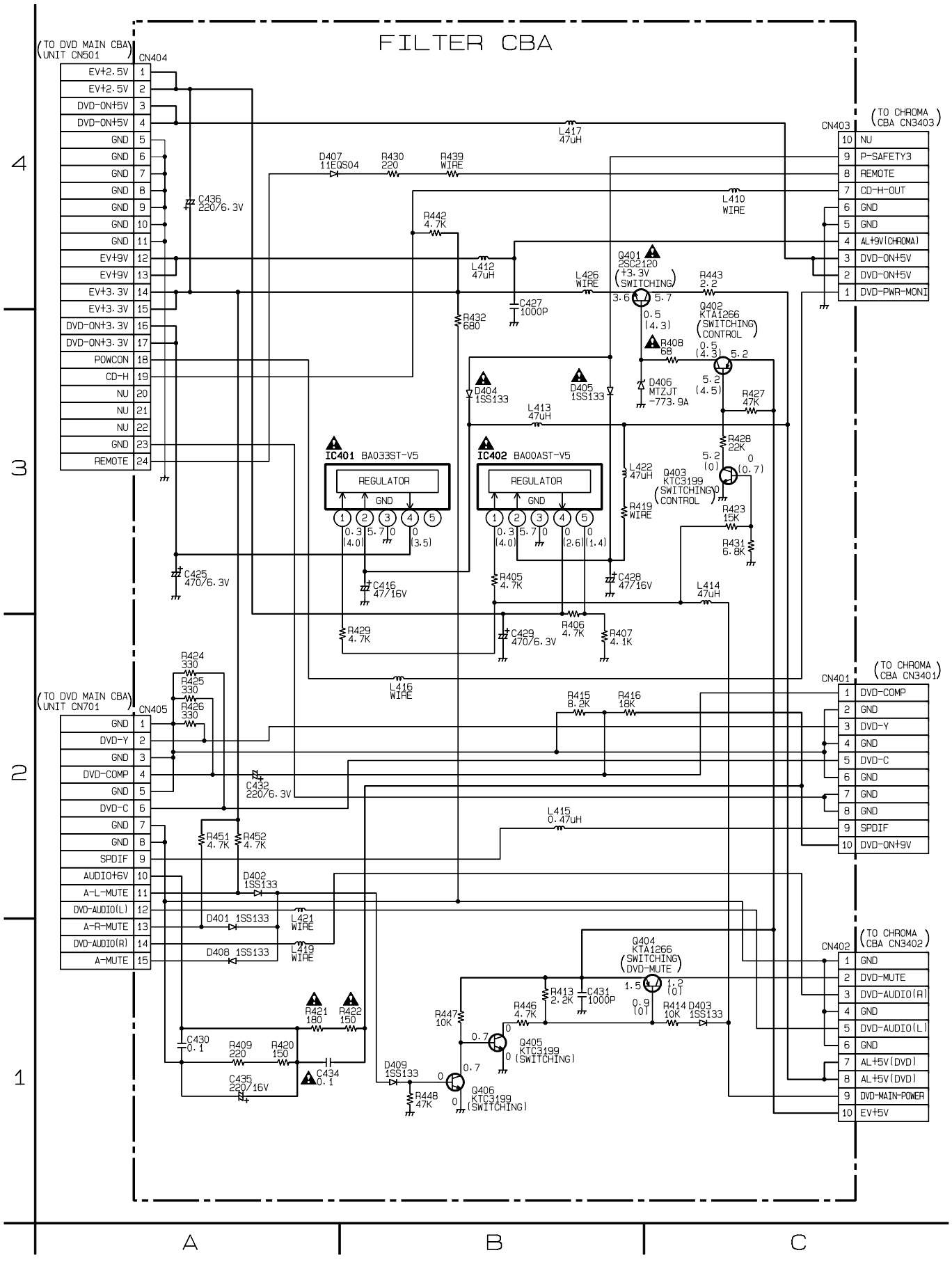


PB Video Signal

DVD Video Signal

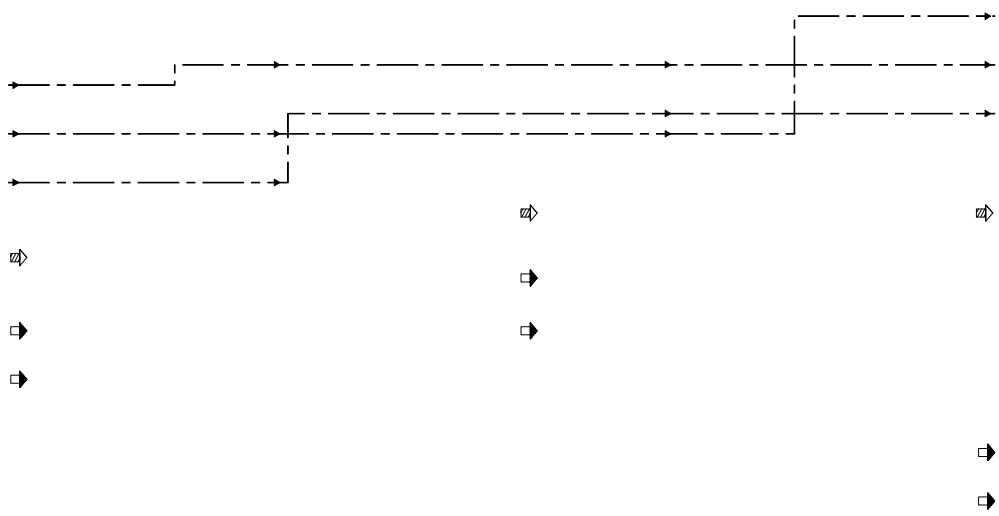


Filter Schematic Diagram <TV/VCR Section >

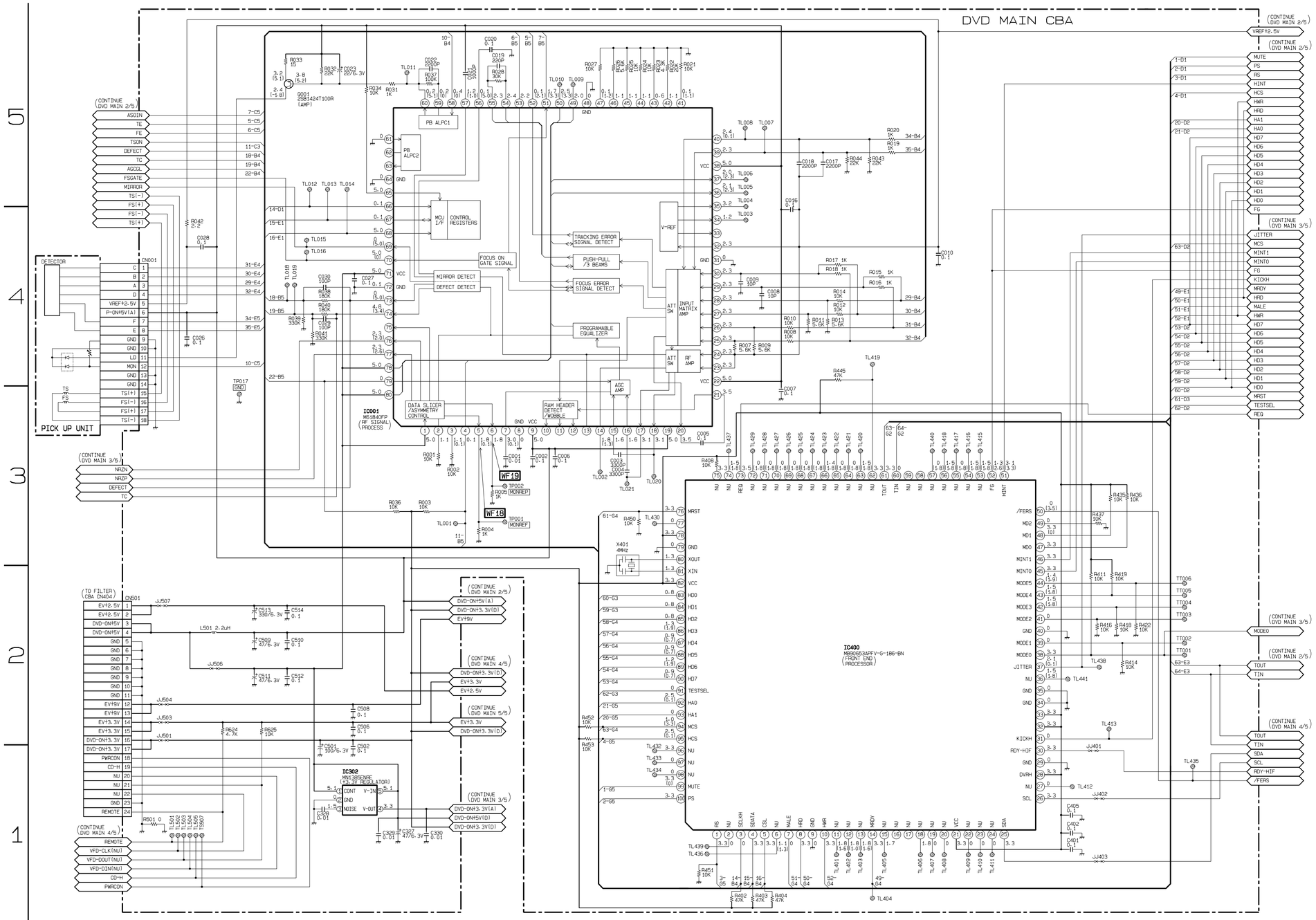


A4	B4	C4
A3	B3	C3
A2	B2	C2
A1	B1	C1

DVD Video Signal DVD Audio Signal DVD Digital Audio Signal



DVD Main 1/5 Schematic Diagram < DVD Section >



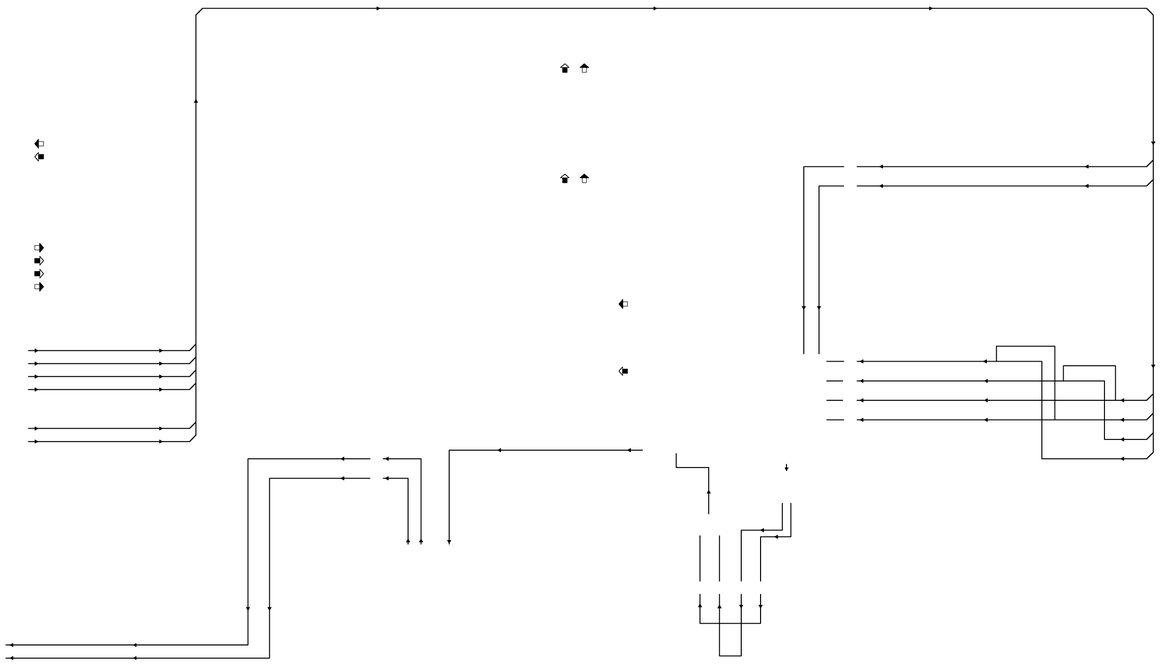
MAIN 1/5	
Ref No.	Position
ICS	
IC001	B-3
IC302	B-1
IC400	E-2
TRANSISTORS	
Q001	B-5
CONNECTORS	
CN001	A-4
CN501	A-2
TEST POINTS	
TP001	C-3
TP002	C-3
TP017	B-4

A5	B5	C5	D5	E5	F5	G5
A4	B4	C4	D4	E4	F4	G4
A3	B3	C3	D3	E3	F3	G3
A2	B2	C2	D2	E2	F2	G2
A1	B1	C1	D1	E1	F1	G1

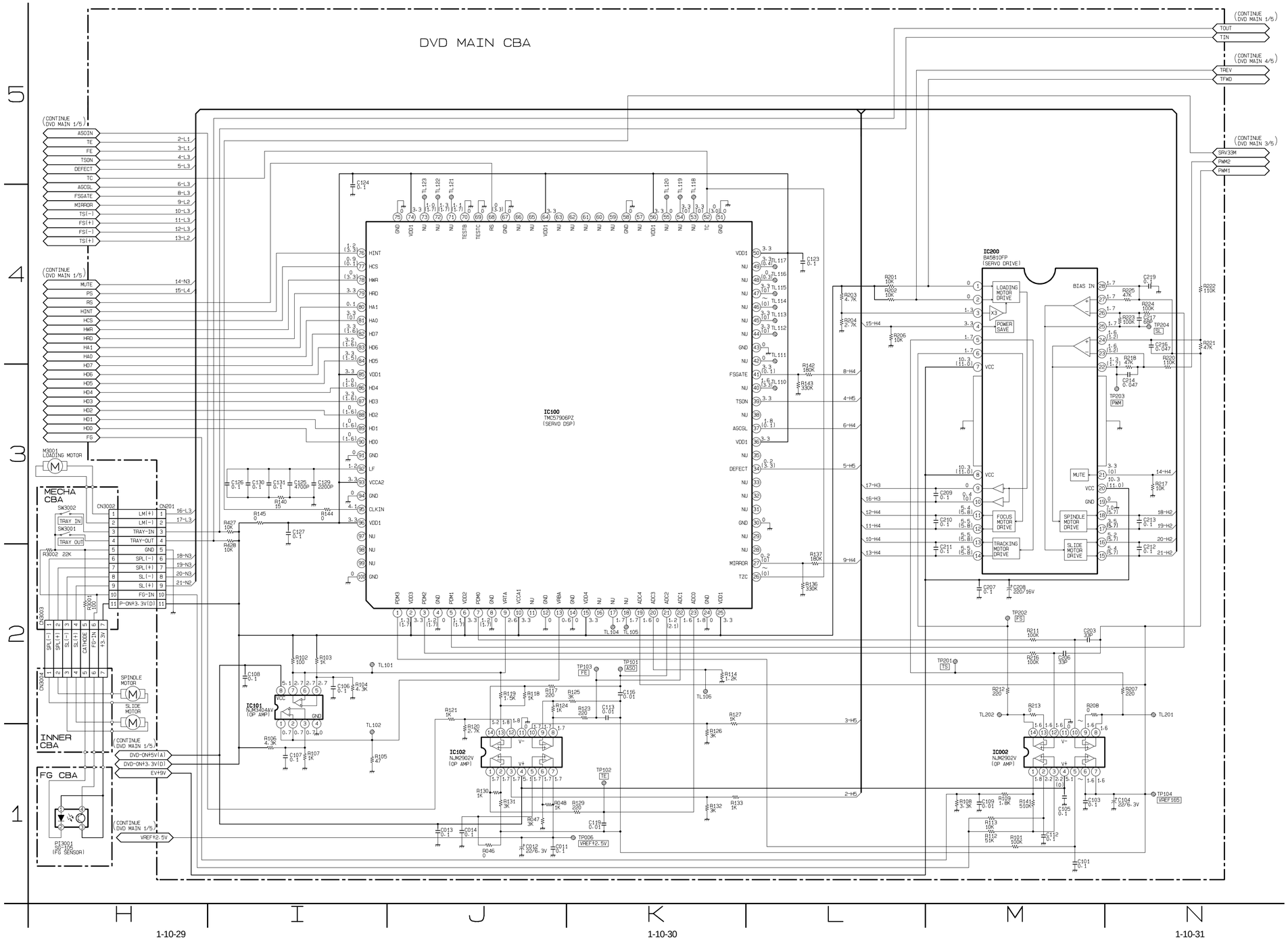
DATA (Video+Audio)

Focus Servo Signal

Tracking Servo Signal



DVD Main 2/5 Schematic Diagram < DVD Section >



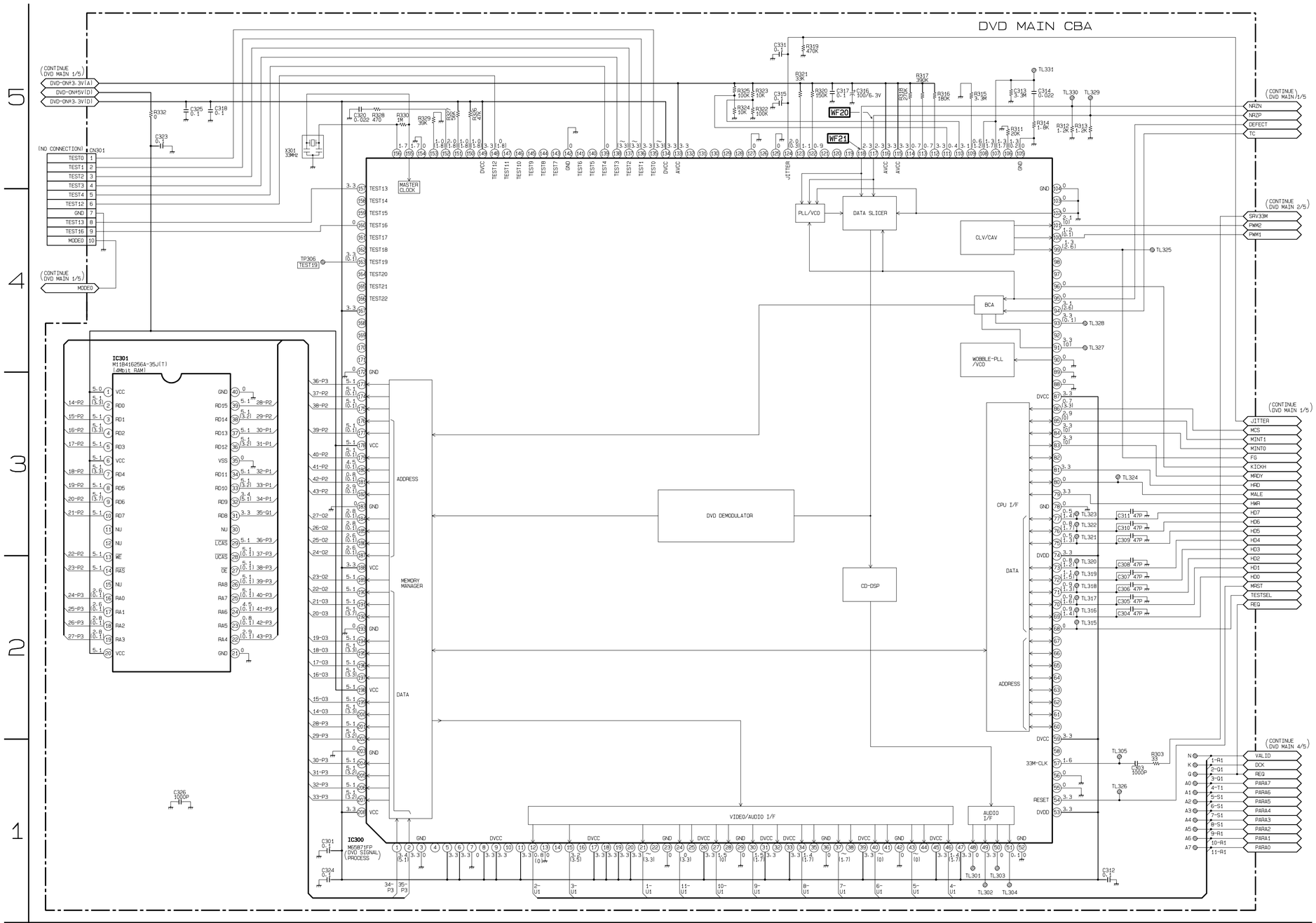
MAIN 2/5

Ref No.	Position
ICS	
IC002	M-1
IC100	J-3
IC101	I-2
IC102	J-1
IC200	M-4
CONNECTORS	
CN201	H-3
TEST POINTS	
TP006	K-1
TP101	K-2
TP102	K-1
TP103	K-2
TP104	N-1
TP201	M-2
TP202	M-2
TP203	N-3
TP204	N-4

H5	I5	J5	K5	L5	M5	N5
H4	I4	J4	K4	L4	M4	N4
H3	I3	J3	K3	L3	M3	N3
H2	I2	J2	K2	L2	M2	N2
H1	I1	J1	K1	L1	M1	N1

Focus Servo Signal
Tracking Servo Signal
Spindle Servo Signal
Slide Servo Signal

DVD Main 3/5 Schematic Diagram < DVD Section >

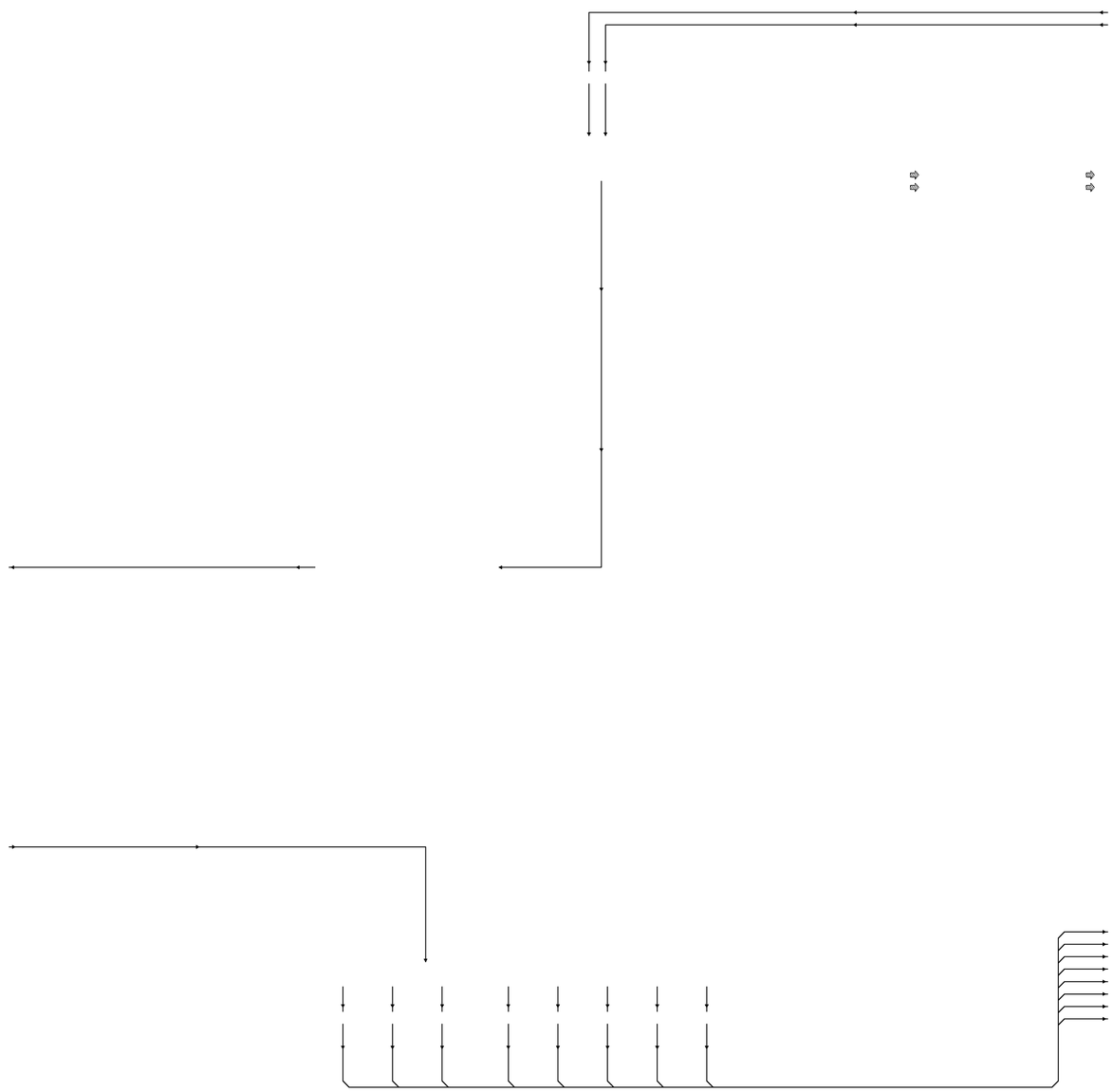


MAIN 3/5	
Ref No.	Position
ICS	
IC300	P-1
IC301	O-4
CONNECTOR	
CN301	O-5
TEST POINT	
TP306	P-4

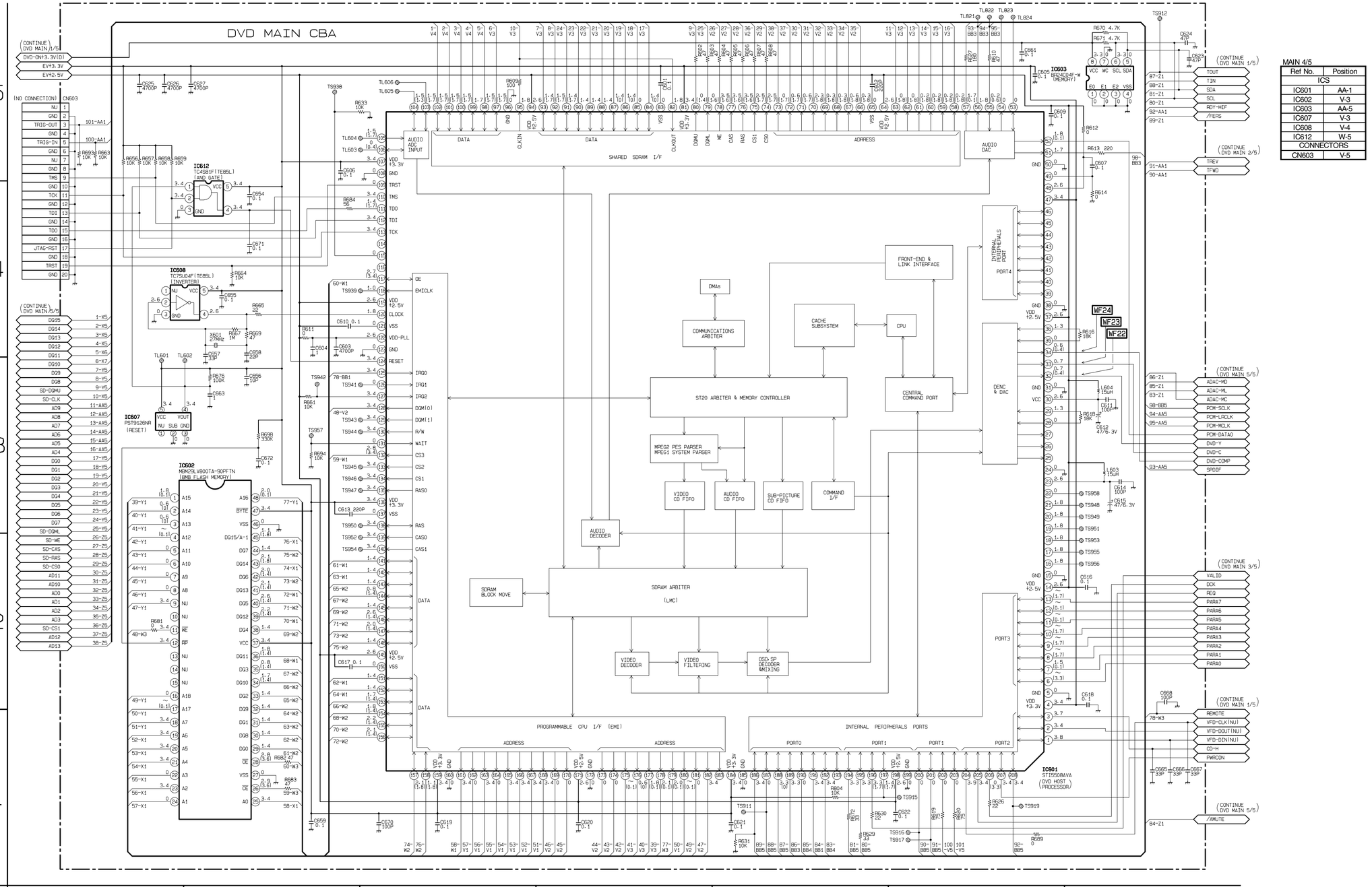
O5	P5	Q5	R5	S5	T5	U5
O4	P4	Q4	R4	S4	T4	U4
O3	P3	Q3	R3	S3	T3	U3
O2	P2	Q2	R2	S2	T2	U2
O1	P1	Q1	R1	S1	T1	U1

DATA(Video+Audio)

Spindle Servo Signal



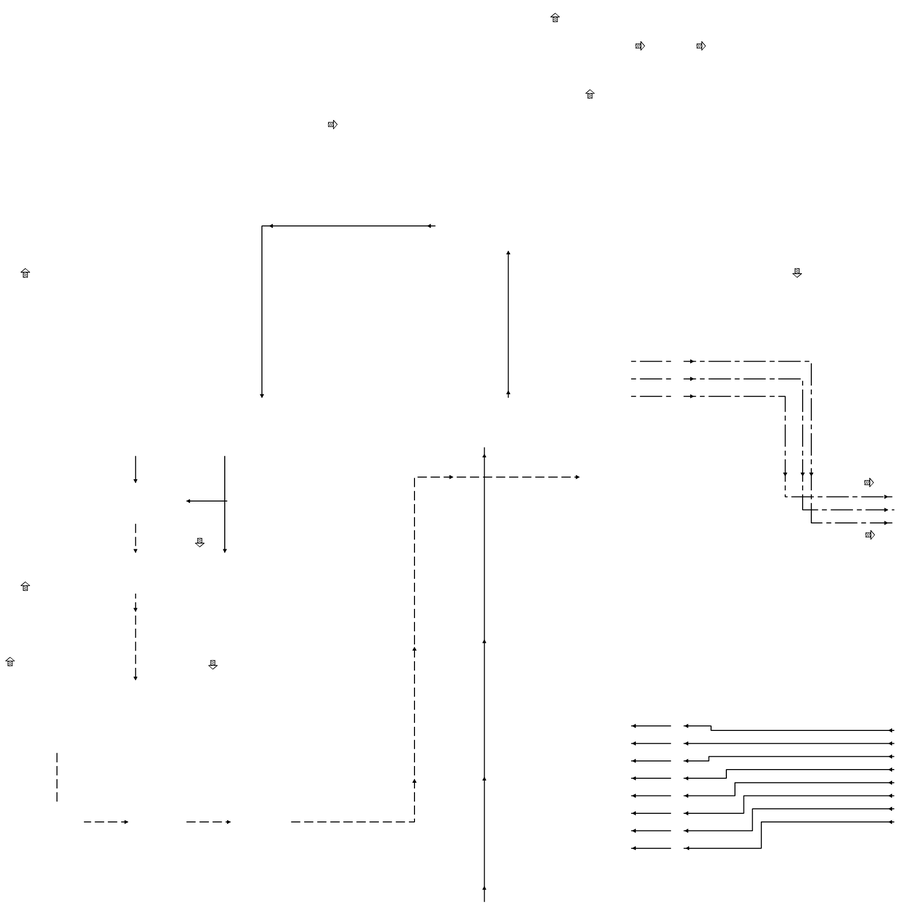
DVD Main 4/5 Schematic Diagram < DVD Section >



MAIN 4/5	
Ref No.	Position
ICS	
IC601	AA-1
IC602	V-3
IC603	AA-5
IC607	V-3
IC608	V-4
IC612	W-5
CONNECTORS	
CN603	V-5

V5	W5	X5	Y5	Z5	AA5	BB5
V4	W4	X4	Y4	Z4	AA4	BB4
V3	W3	X3	Y3	Z3	AA3	BB3
V2	W2	X2	Y2	Z2	AA2	BB2
V1	W1	X1	Y1	Z1	AA1	BB1

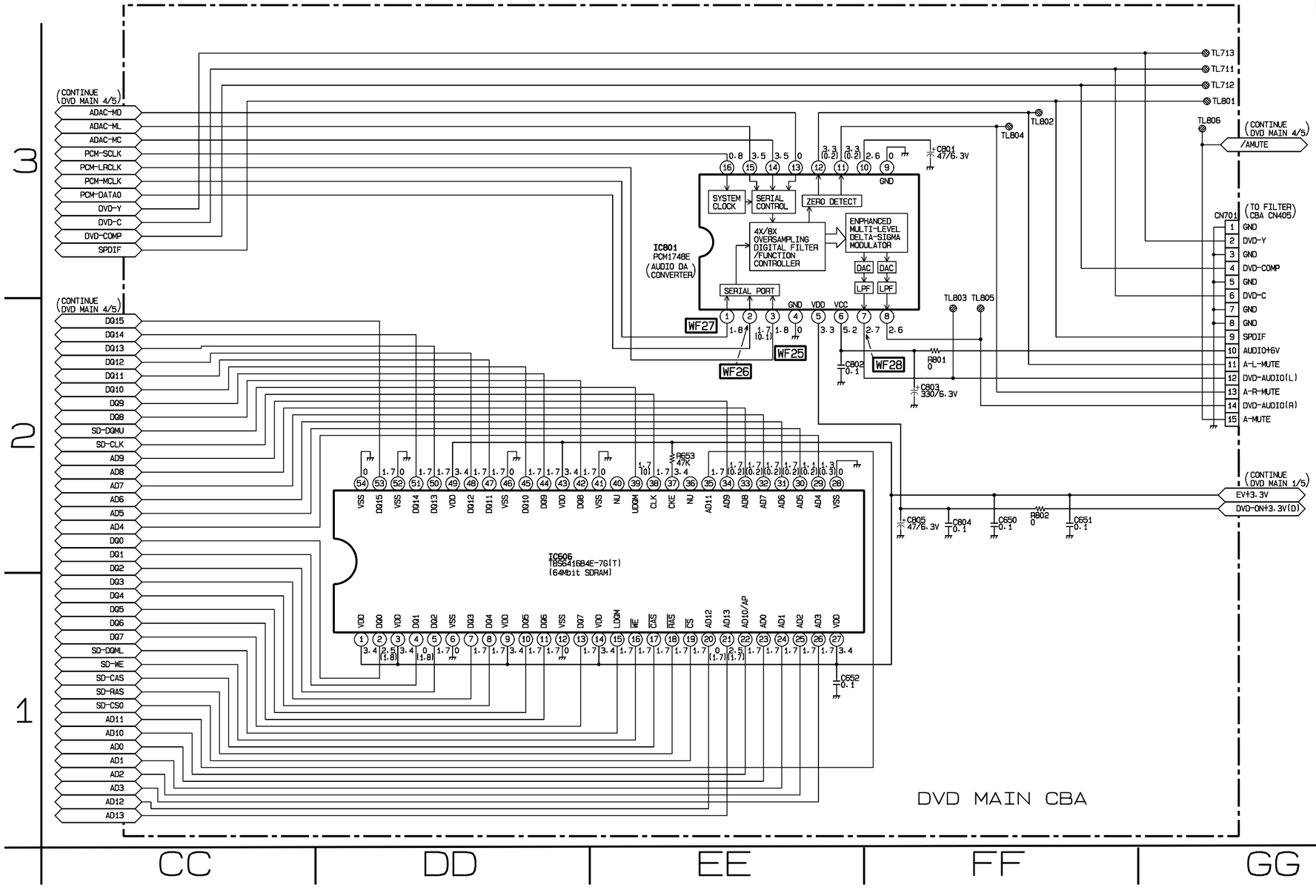
DATA (Video+Audio)
DATA (Video)
DVD Video Signal
DVD Digital Audio Signal



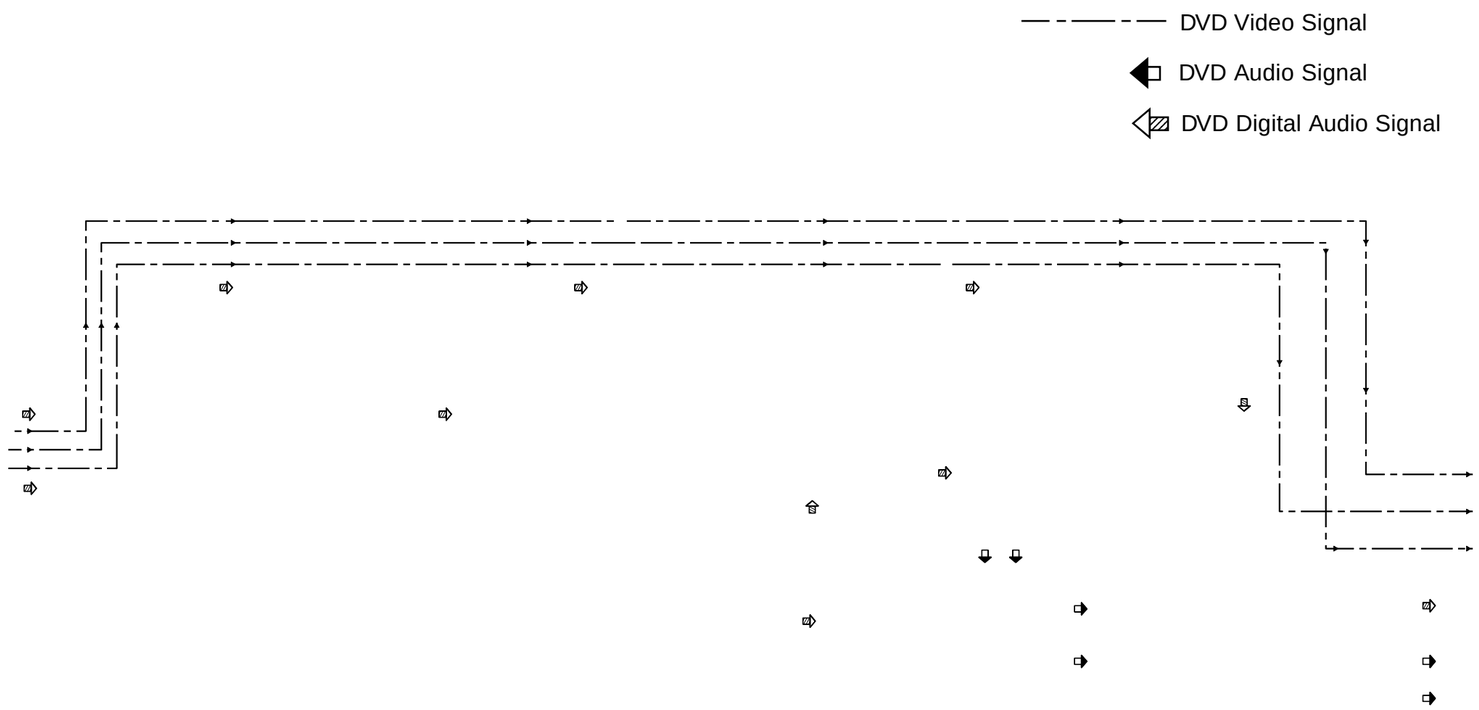
DVD Main 5/5 Schematic Diagram < DVD Section >

MAIN 5/5

Ref No.	Position
ICS	
IC606	DD-2
IC801	EE-3
CONNECTOR	
CN701	GG-3



CC3	DD3	EE3	FF3	GG3
CC2	DD2	EE2	FF2	GG2
CC1	DD1	EE1	FF1	GG1

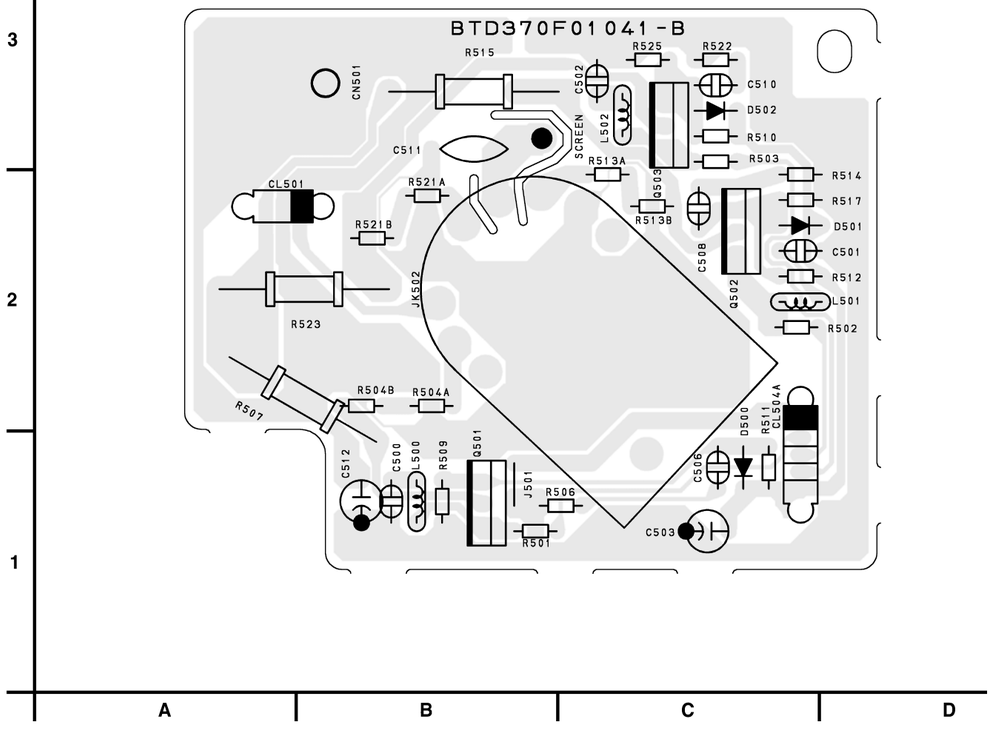

DVD Video Signal
DVD Audio Signal
DVD Digital Audio Signal

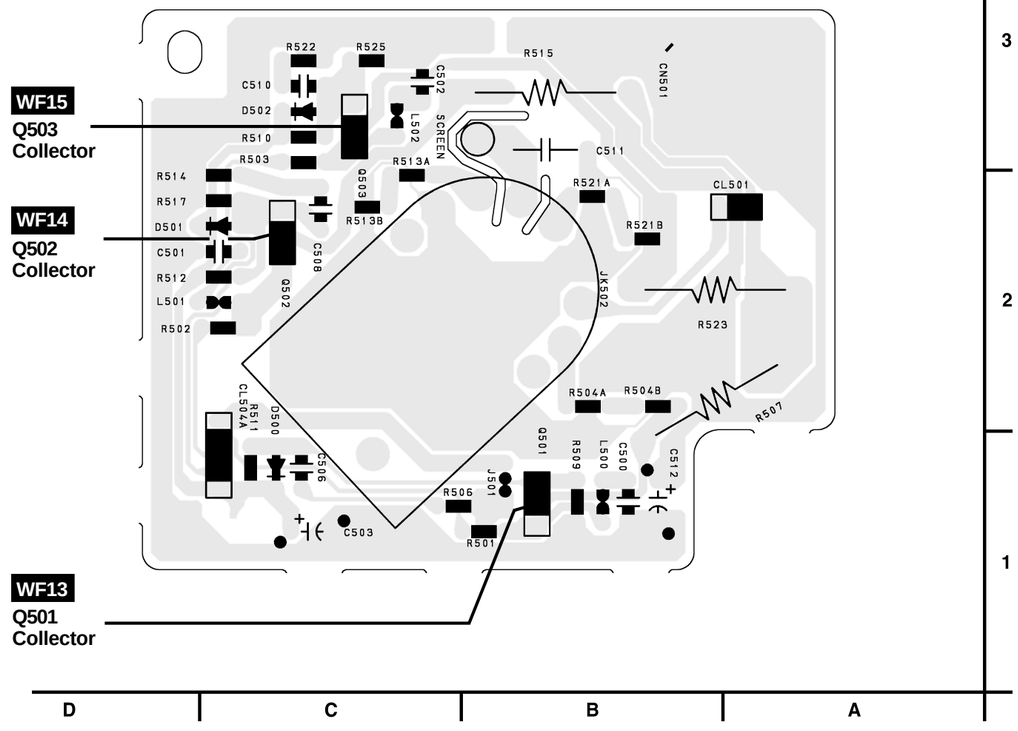
CRT CBA Top View < TV/VCR Section >

CRT CBA Bottom View < TV/VCR Section >

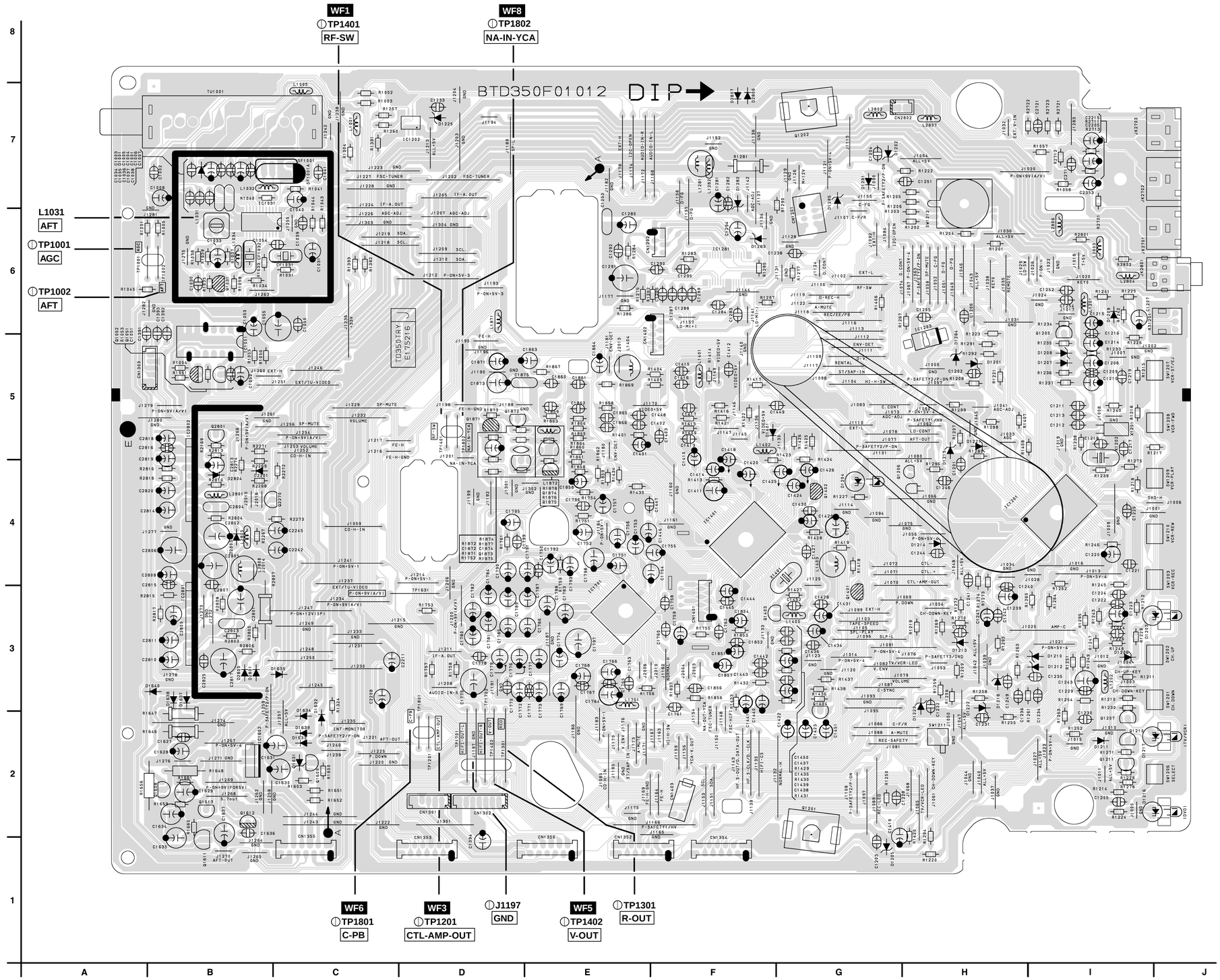
CRT CBA

Ref No.	Position
TRANSISTORS	
Q501	C-2
Q502	C-2
Q503	B-1
CONNECTORS	
CL501	A-2
CL504B	C-1
CN501	B-3





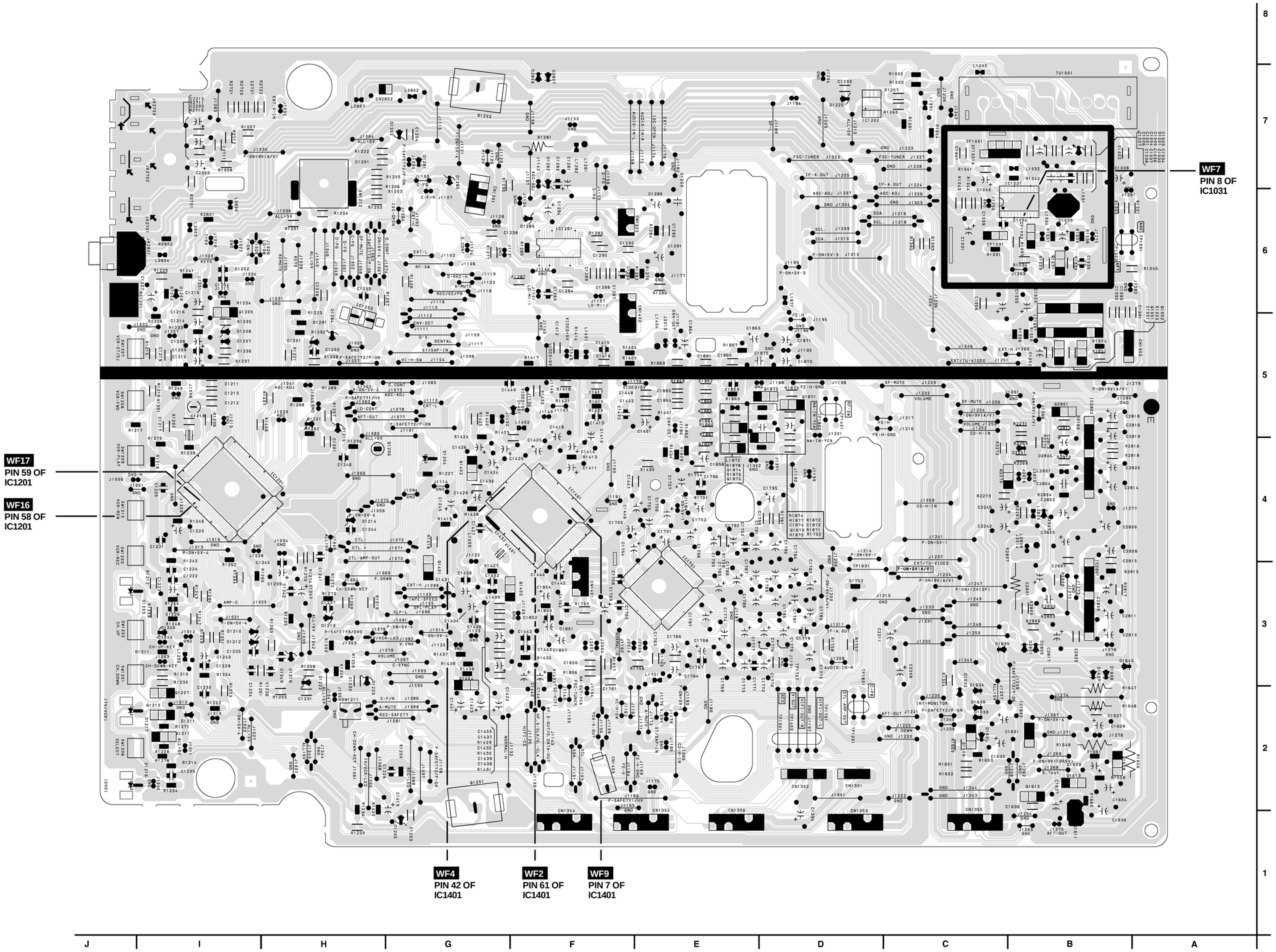
Main CBA Top View < TV/VCR Section >



MAIN CBA

Ref No.	Position
ICS	
IC1031	B-6
IC1051	B-5
IC1201	I-4
IC1202	D-7
IC1281	F-6
IC1401	F-4
IC1602	B-2
IC1701	E-3
IC2801	B-3
IC2802	B-5
TRANSISTORS	
Q1031	B-6
Q1051	B-5
Q1052	B-5
Q1201	G-2
Q1202	G-7
Q1205	I-6
Q1206	H-4
Q1207	I-2
Q1210	I-2
Q1211	I-2
Q1401	G-3
Q1402	G-4
Q1403	F-3
Q1404	G-3
Q1608	B-2
Q1609	C-2
Q1611	B-1
Q1612	B-2
Q1613	B-2
Q1871	D-5
Q1872	D-5
Q1873	D-4
Q1874	E-5
Q1875	E-4
Q2270	C-4
Q2801	B-5
CONNECTORS	
CN1201	G-6
CN1202	F-6
CN1301	D-2
CN1302	D-2
CN1303	A-5
CN1352	E-1
CN1353	D-1
CN1354	F-1
CN1355	C-1
CN1356	E-1
CN1401	F-3
CN1402	F-5
CN1403	F-2
CN2802	G-7
TEST POINTS	
TP1001	B-6
TP1002	B-6
TP1201	D-2
TP1301	D-2
TP1401	D-5
TP1402	D-2
TP1631	D-3
TP1701	D-2
TP1702	D-2
TP1801	D-2
TP1802	D-5

Main CBA Bottom View < TV/VCR Section >



Chroma CBA Top View < TV/VCR Section >

CAUTION !
Fixed voltage power supply circuit is used in this unit.
If Main Fuse (F601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

4A/125V

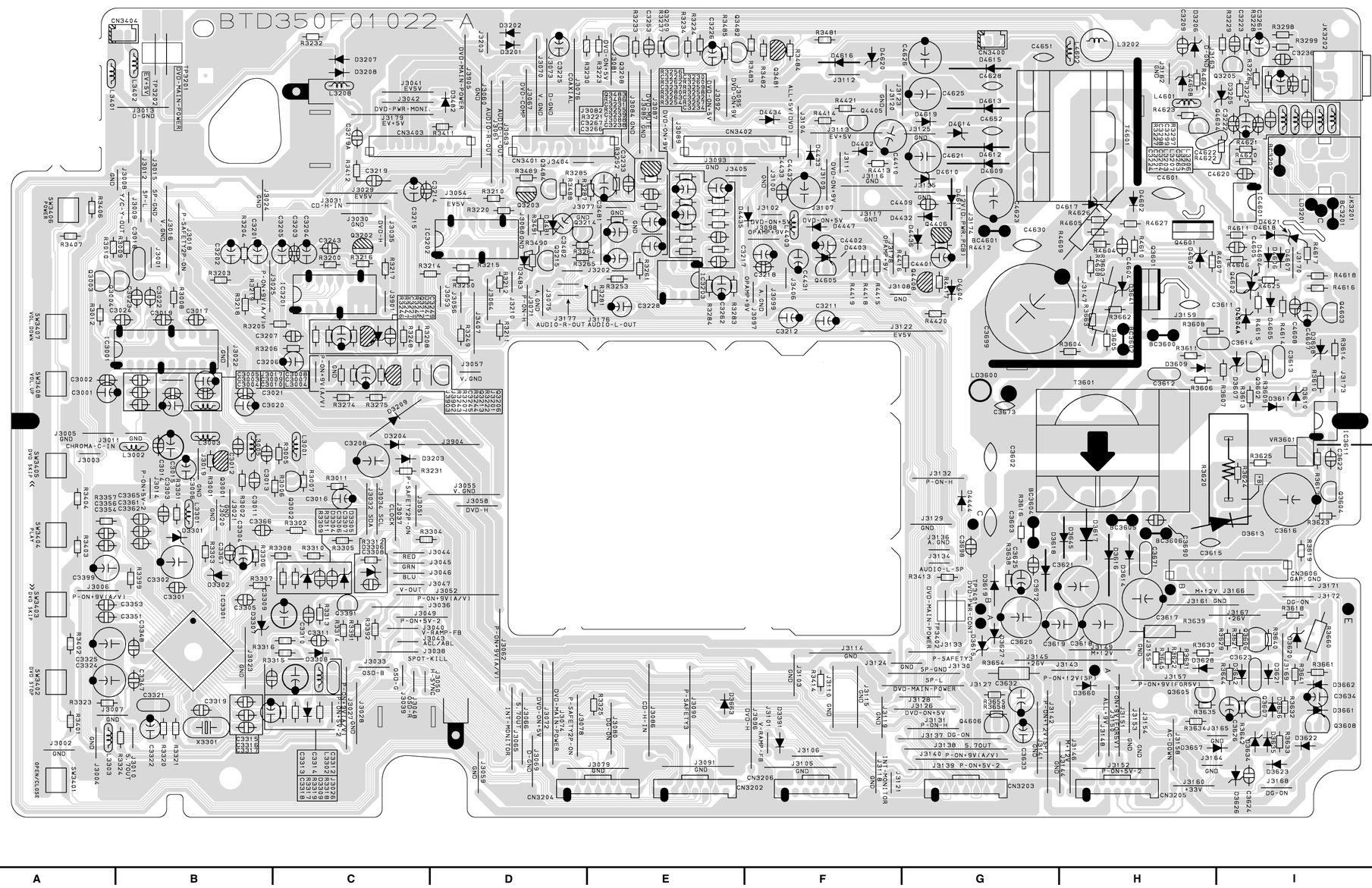
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES
D'INCELE N'UTILISER QUE DES FUSIBLE DE MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT, AN ISOLATION TRANSFORMER MUST BE USED. ALSO, IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY, WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT, A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.

NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

CHROMA CBA

Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Position	Ref No.	Positio
ICS		TRANSISTORS		TRANSISTORS		TRANSISTORS		CONNECTORS	
IC3001	B-4	Q3203	D-5	Q3601	H-4	Q4604	H-5	CN3404	B-6
IC3201	C-4	Q3205	I-6	Q3602	I-4	Q4605	F-4	CN3606	I-2
IC3202	D-4	Q3208	E-6	Q3604	I-3	Q4606	G-1	TEST POINTS	
IC3203	E-4	Q3209	E-6	Q3605	H-2	CONNECTORS		TP3201	B-6
IC3301	B-2	Q3212	C-4	Q3606	I-2	CN3202	E-1	TP3202	B-6
IC3611	I-3	Q3213	C-4	Q3607	I-2	CN3203	G-1	TP3401	G-2
IC4601	I-5	Q3214	D-5	Q3608	I-1	CN3204	D-1	TP3402	G-2
TRANSISTORS		Q3215	D-4	Q4405	F-5	CN3205	H-1	VARIABLE RESISTOR	
Q3001	B-3	Q3391	C-2	Q4406	G-5	CN3206	F-1	VR3601	I-3
Q3002	C-3	Q3481	F-6	Q4408	G-4	CN3400	G-6		
Q3003	A-3	Q3482	E-6	Q4601	H-5	CN3401	D-5		
Q3004	B-4	Q3483	E-5	Q4602	I-4	CN3402	E-5		
Q3202	C-4	Q3484	D-5	Q4603	I-4	CN3403	C-5		



Chroma CBA Bottom View < TV/VCR Section >

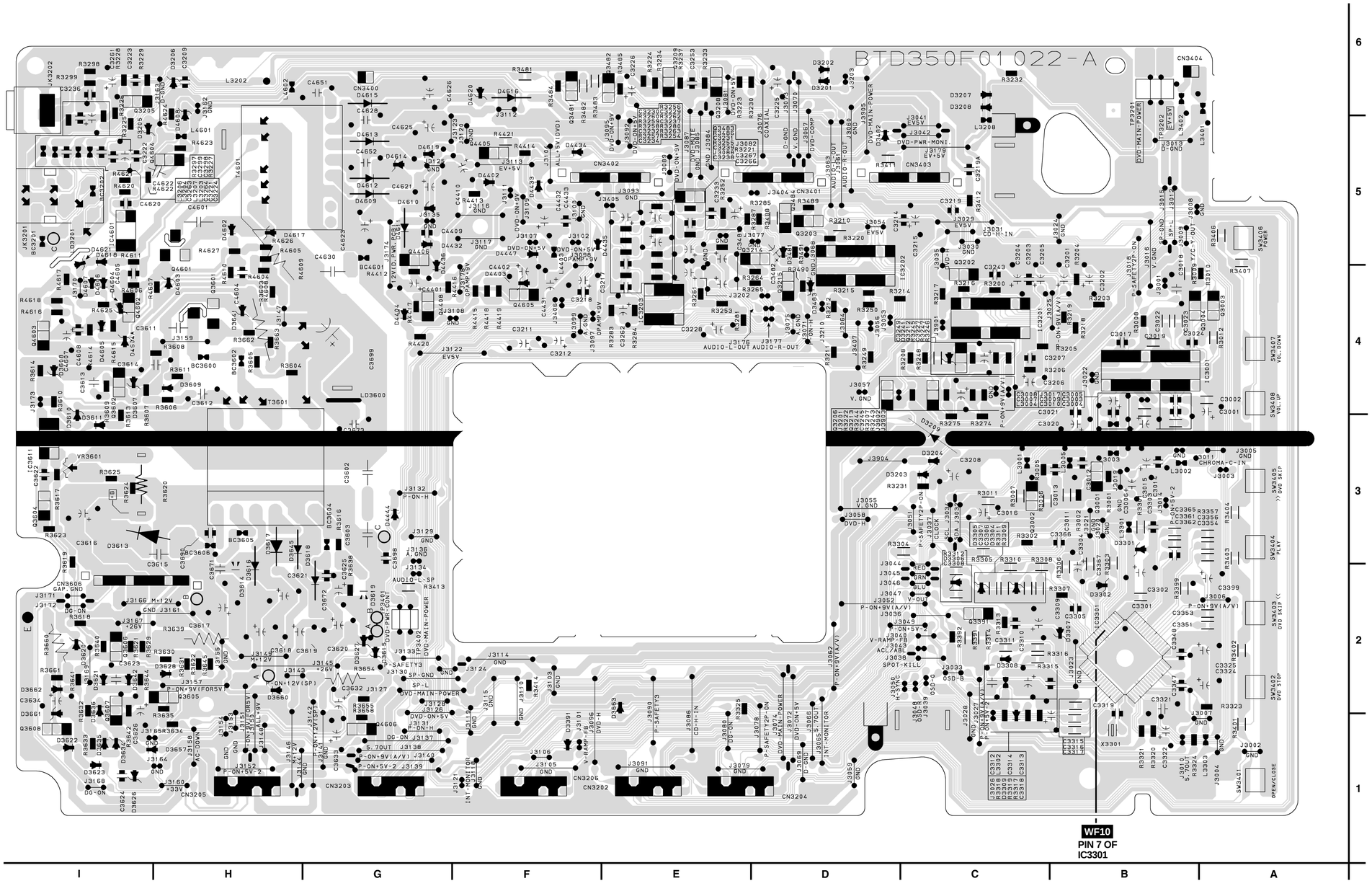
CAUTION !
Fixed voltage power supply circuit is used in this unit.
If Main Fuse (F601) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

4A/125V

CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION : POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MEMO TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.
"This symbol means fast operating fuse."
"Ce symbole représente un fusible à fusion rapide."

BECAUSE A HOT CHASSIS GROUND IS PRESENT IN THE POWER SUPPLY CIRCUIT, AN ISOLATION TRANSFORMER MUST BE USED. ALSO, IN ORDER TO HAVE THE ABILITY TO INCREASE THE INPUT SLOWLY, WHEN TROUBLESHOOTING THIS TYPE POWER SUPPLY CIRCUIT, A VARIABLE ISOLATION TRANSFORMER IS REQUIRED.

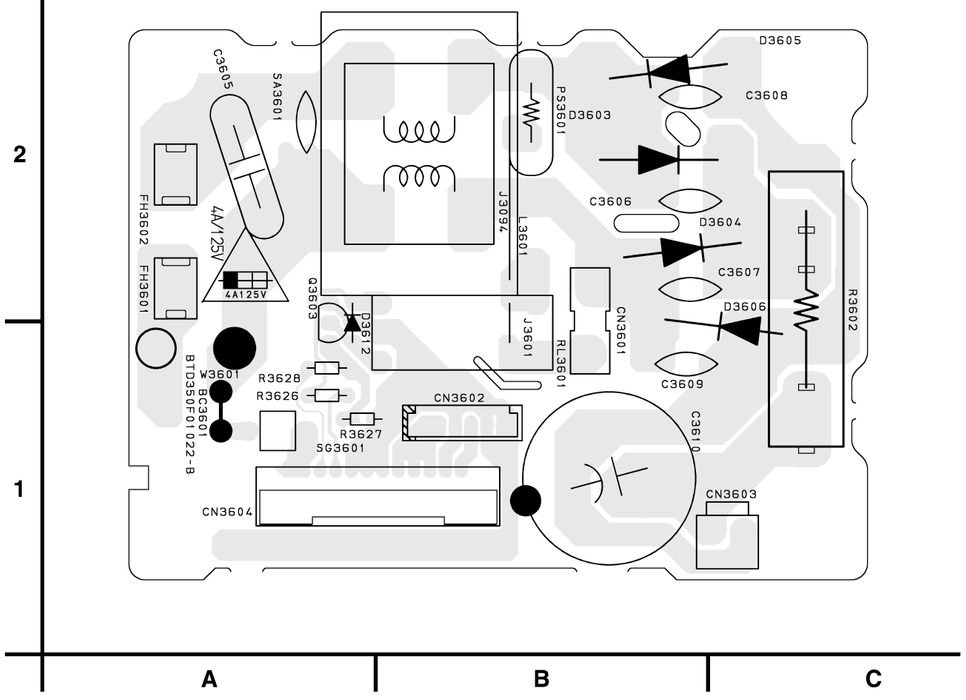
NOTE :
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



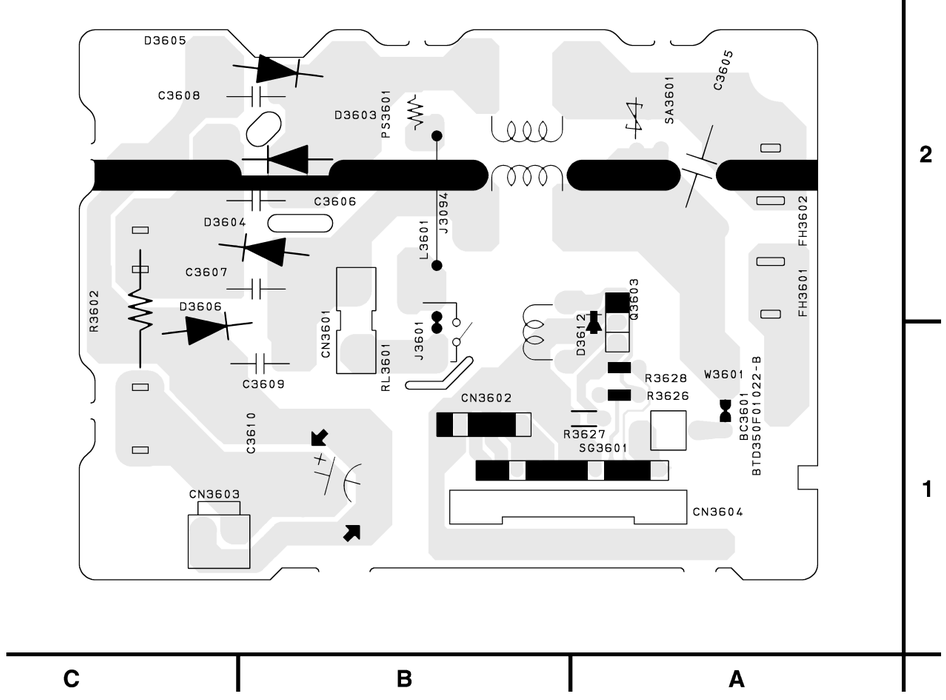
Sub Power CBA Top View < TV/VCR Section >

SUB POWER CBA

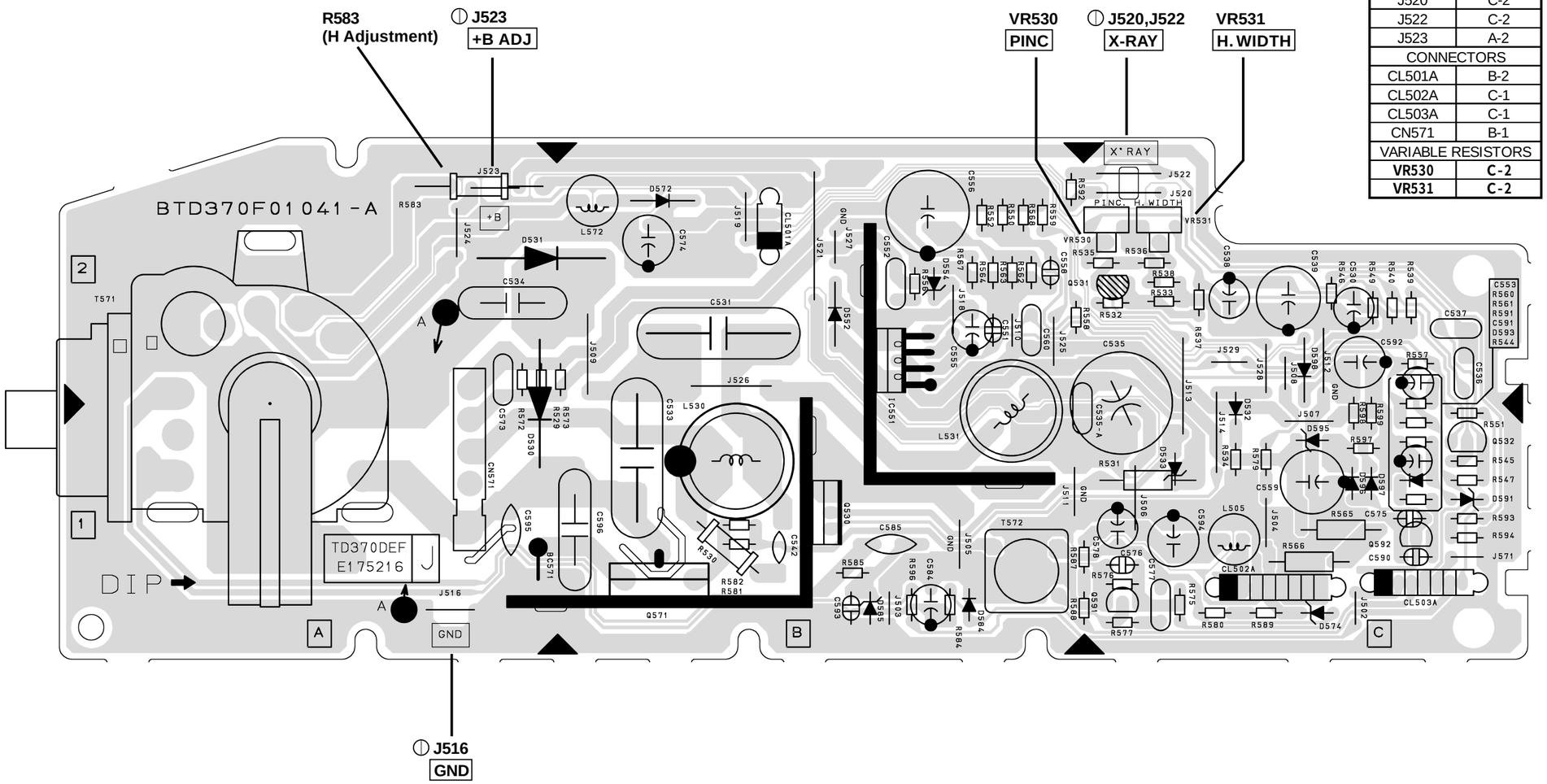
Ref No.	Position
TRANSISTOR	
Q3603	A-1
CONNECTORS	
CN3601	B-1
CN3602	B-1
CN3603	C-1
CN3604	A-1



Sub Power CBA Bottom View < TV/VCR Section >



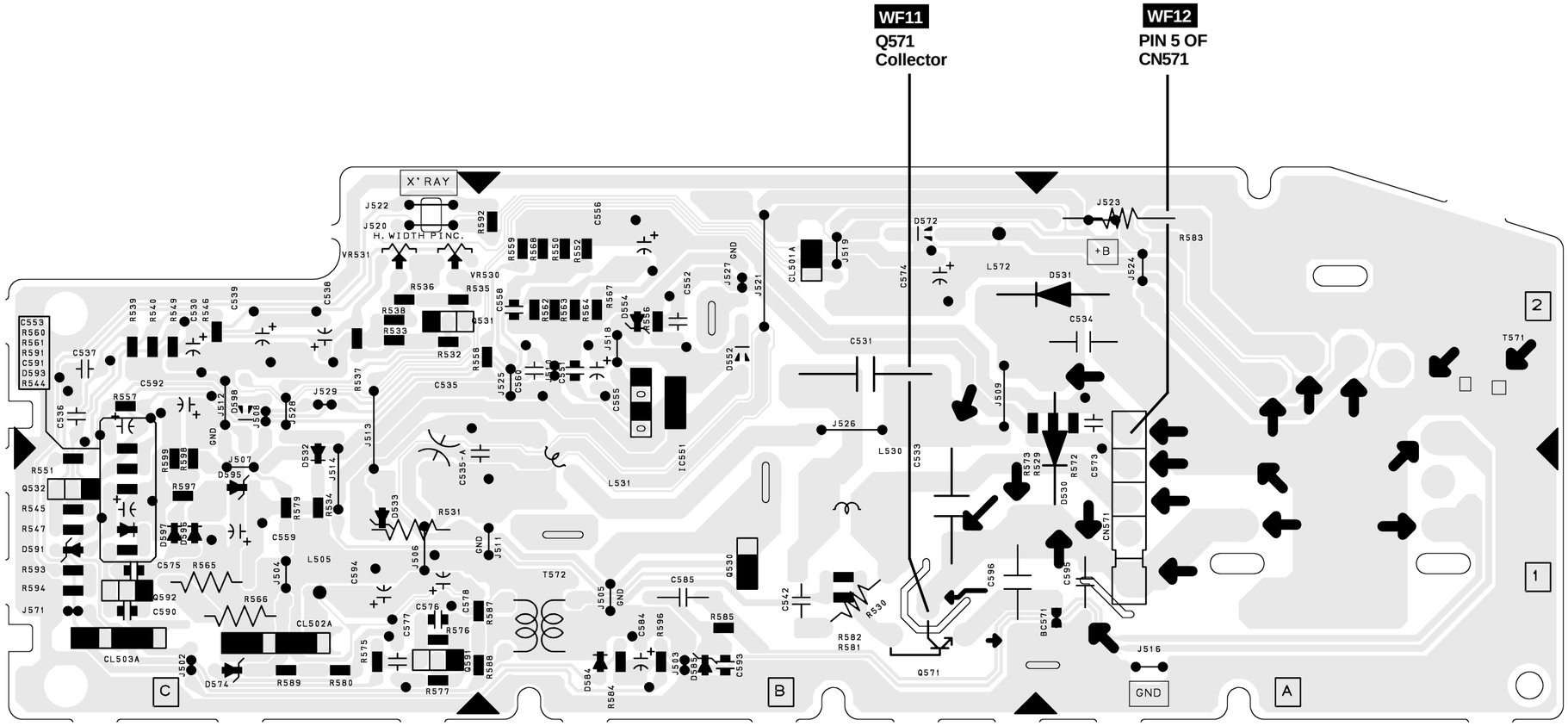
H.V. CBA Top View < TV/VCR Section >



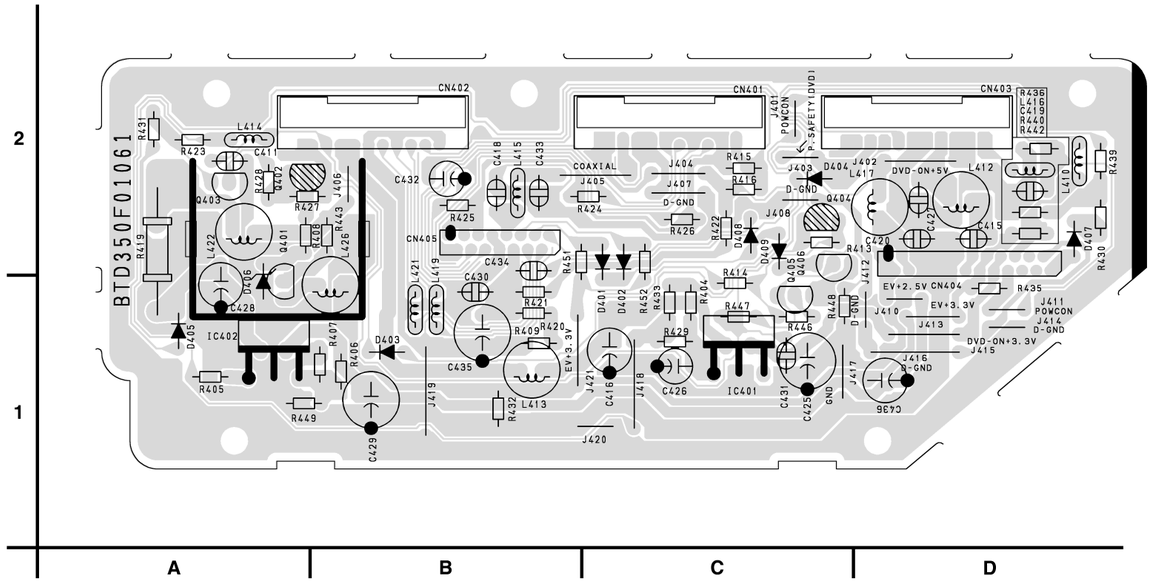
H.V. CBA

Ref No.	Position
ICS	
IC551	B-2
TRANSISTORS	
Q530	B-1
Q531	C-2
Q532	C-1
Q571	B-1
Q591	C-1
Q592	C-1
TEST POINTS	
J516	B-1
J520	C-2
J522	C-2
J523	A-2
CONNECTORS	
CL501A	B-2
CL502A	C-1
CL503A	C-1
CN571	B-1
VARIABLE RESISTORS	
VR530	**C-2**
VR531	**C-2**

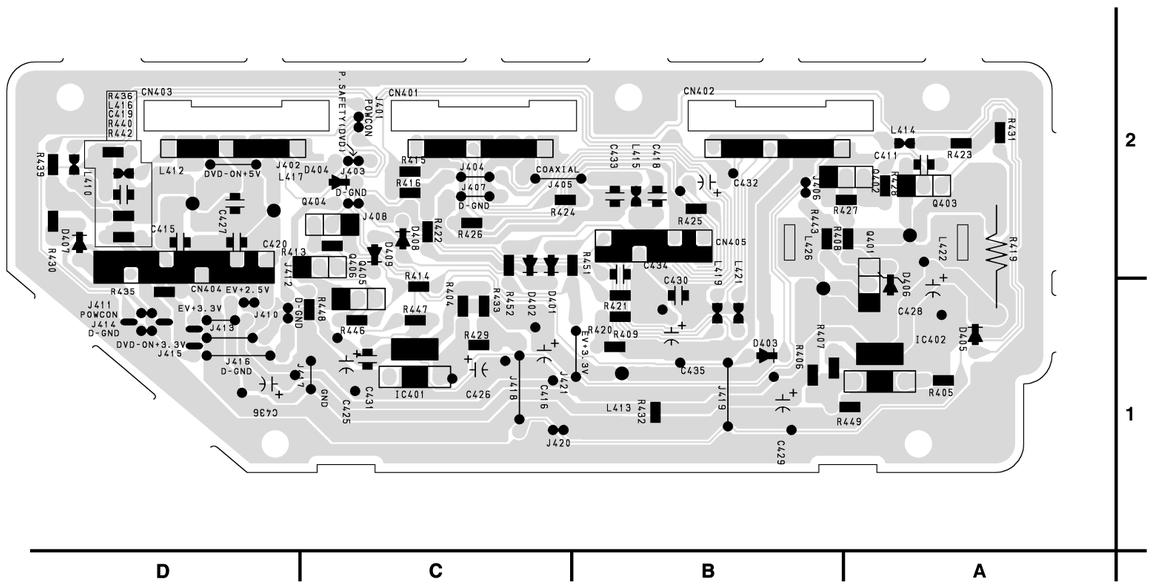
H.V. CBA Bottom View < TV/VCR Section >



Filter CBA Top View < TV/VCR Section >



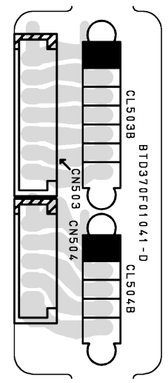
Filter CBA Bottom View < TV/VCR Section >



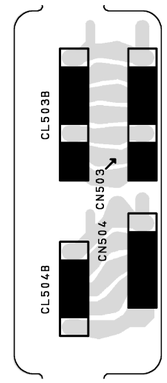
BTD350F01061

1-10-60

Junction A CBA Top View < TV/VCR Section >

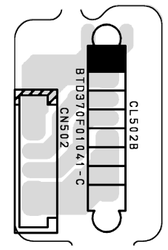


Junction A CBA Bottom View < TV/VCVR Section >

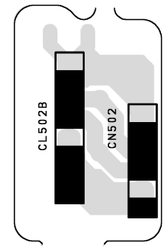


BTD370F01041-D

Junction B CBA Top View < TV/VCR Section >



Junction B CBA Bottom View < TV/VCR Section >



BTD370F01041-C

FILTER CBA

Ref No.	Position	Ref No.	Position	Ref No.	Position
ICS		TRANSISTORS		CONNECTORS	
IC401	C-1	Q404	C-2	CN403	D-2
IC402	A-1	Q405	C-1	CN404	D-1
TRANSISTORS		Q406	C-2	CN405	B-2
Q401	A-2	CONNECTORS			
Q402	A-2	CN401	C-1		
Q403	A-2	CN402	B-2		

1-10-61

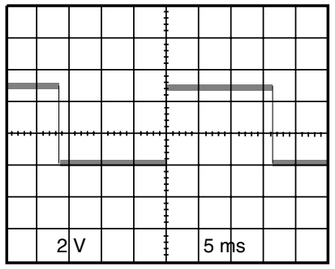
WAVEFORMS < TV/VCR Section >

WAVEFORM NOTES

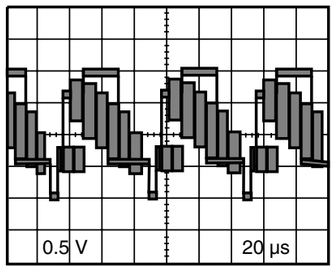
INPUT: NTSC COLOR BAR SIGNAL

OTHER CONTROLS : CENTER POSITION

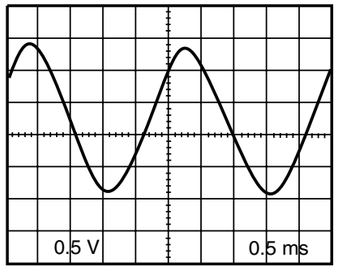
VOLTAGES SHOWN ARE RANGE OF OSCILLOSCOPE SETTING



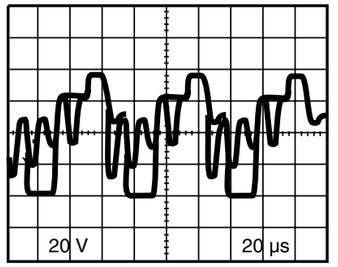
WF1 1DIV: 2V 5msec
TP1401



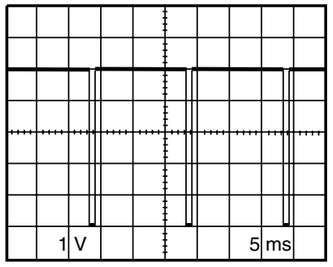
WF5 1DIV: 0.5V 20µsec
TP1402



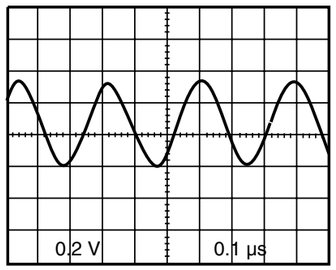
WF9 1DIV: 0.5V 0.5msec
Pin 7 of IC1401



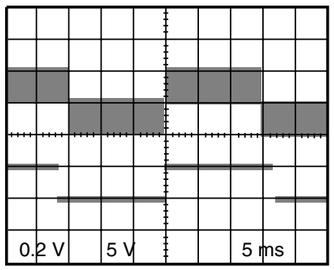
WF13 1DIV: 20V 20µsec
Q501 Collector



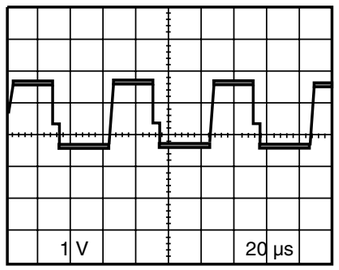
WF17 1DIV: 1V 20µsec
Pin 59 of IC1201



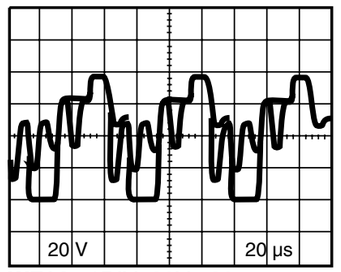
WF2 1DIV: 0.2V 0.1µsec
Pin 61 of IC1401



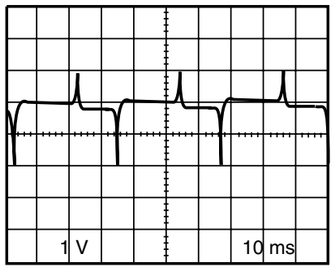
Upper: WF6 1DIV: 5V 5msec
Lower: WF1 TP1801



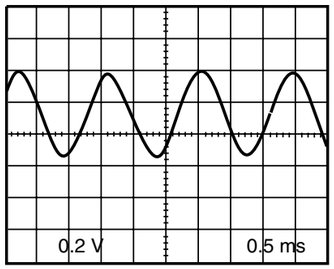
WF10 1DIV: 1V 20µsec
Pin 7 of IC3301



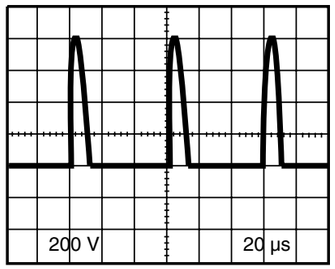
WF14 1DIV: 20V 20µsec
Q502 Collector



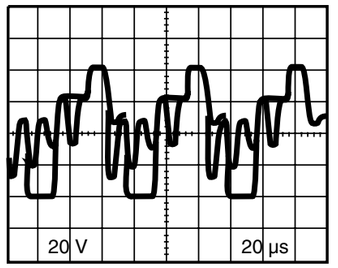
WF3 1DIV: 1V 10msec
TP1201



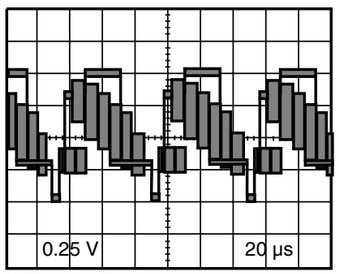
WF7 1DIV: 0.2V 0.5msec
Pin 8 of IC1031



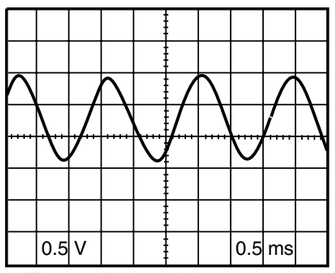
WF11 1DIV: 200V 20µsec
Q571 Collector



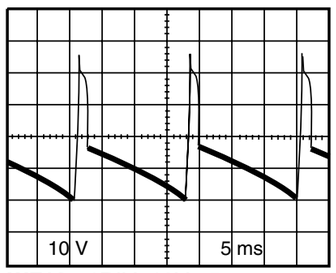
WF15 1DIV: 20V 20µsec
Q503 Collector



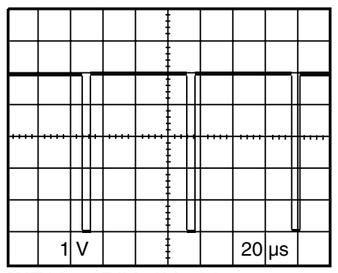
WF4 1DIV: 0.2V 0.1µsec
Pin 42 of IC1401



WF8 1DIV: 0.5V 0.5msec
TP1802

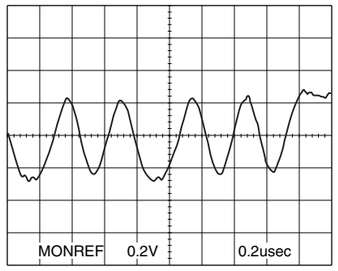


WF12 1DIV: 10V 5msec
Pin 5 of CN571

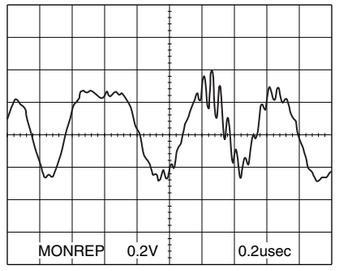


WF16 1DIV: 1V 20µsec
Pin 58 of IC1201

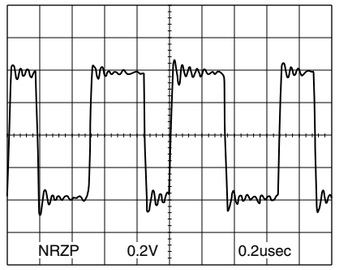
WAVEFORMS < DVD Section >



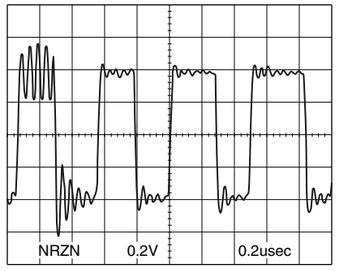
WF18 1DIV: 0.2V 0.2µsec
Pin 5 of IC001



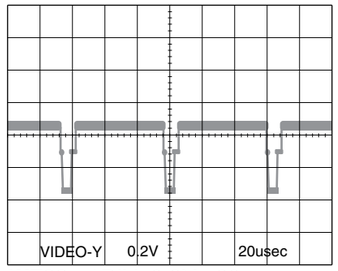
WF19 1DIV: 0.2V 0.2µsec
Pin 6 of IC001



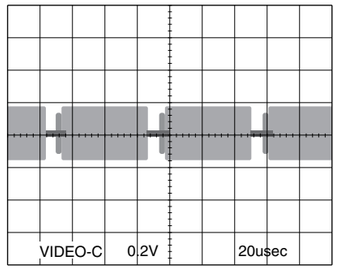
WF20 1DIV: 0.2V 0.2µsec
Pin 117 of IC300



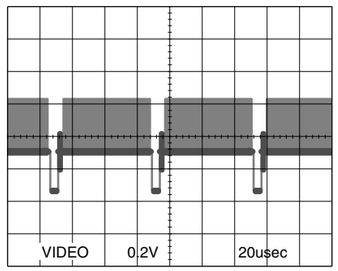
WF21 1DIV: 0.2V 0.2µsec
Pin 118 of IC300



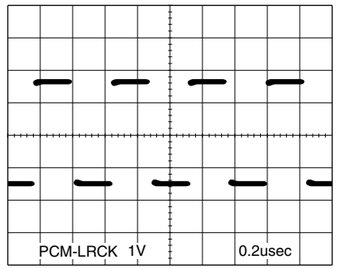
WF22 1DIV: 0.2V 20µsec
Pin 32 of IC601



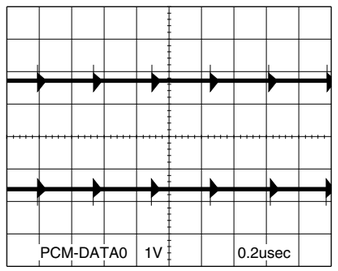
WF23 1DIV: 0.2V 20µsec
Pin 33 of IC601



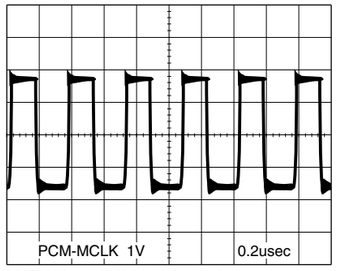
WF24 1DIV: 0.2V 20µsec
Pin 34 of IC601



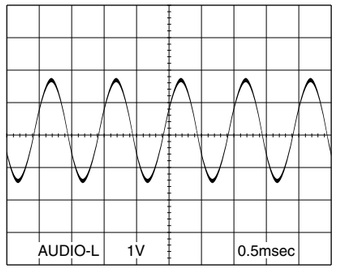
WF25 1DIV: 1V 0.2µsec
Pin 3 of IC801



WF26 1DIV: 1V 0.2µsec
Pin 2 of IC801



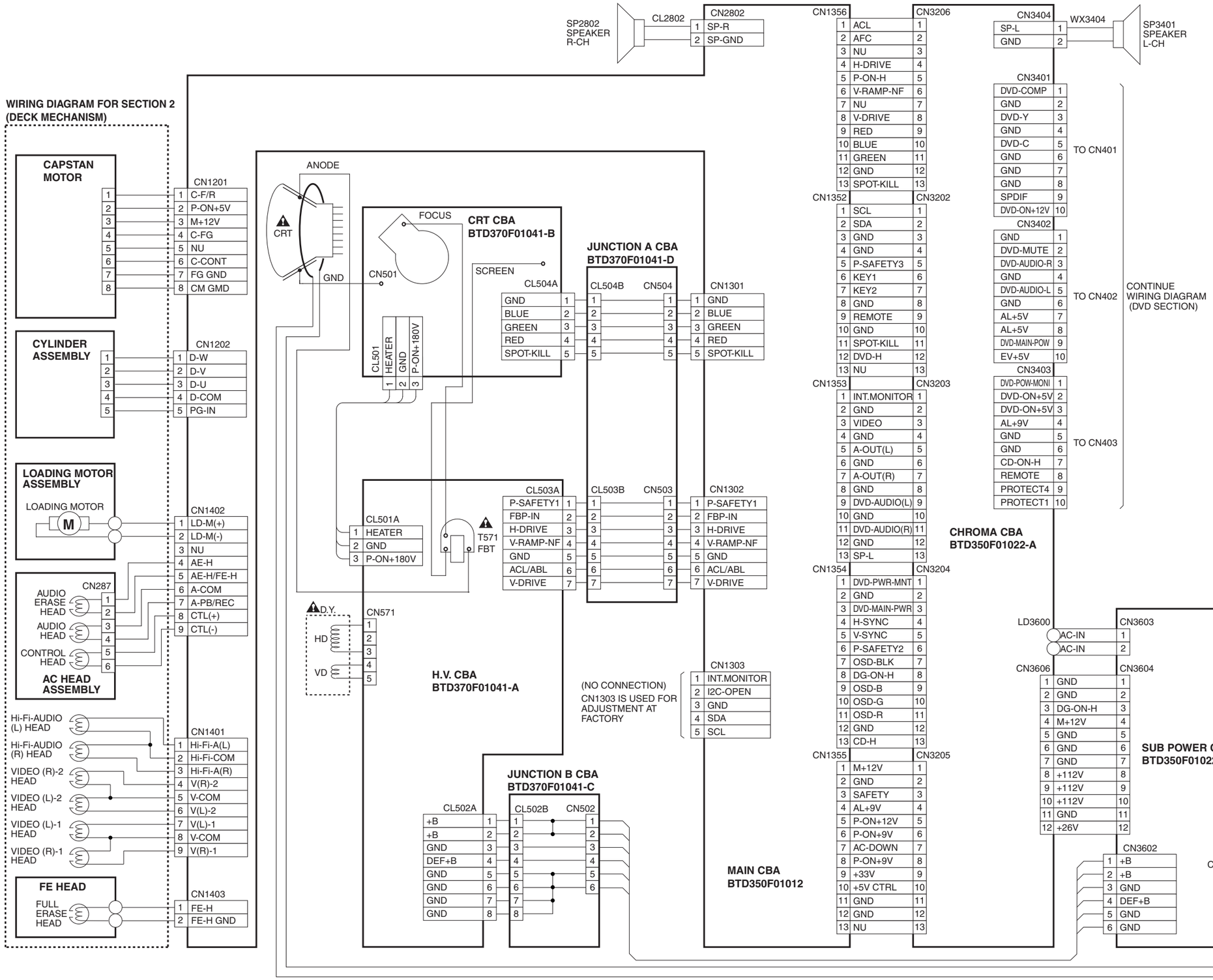
WF27 1DIV: 1V 0.2µsec
Pin 1 of IC801



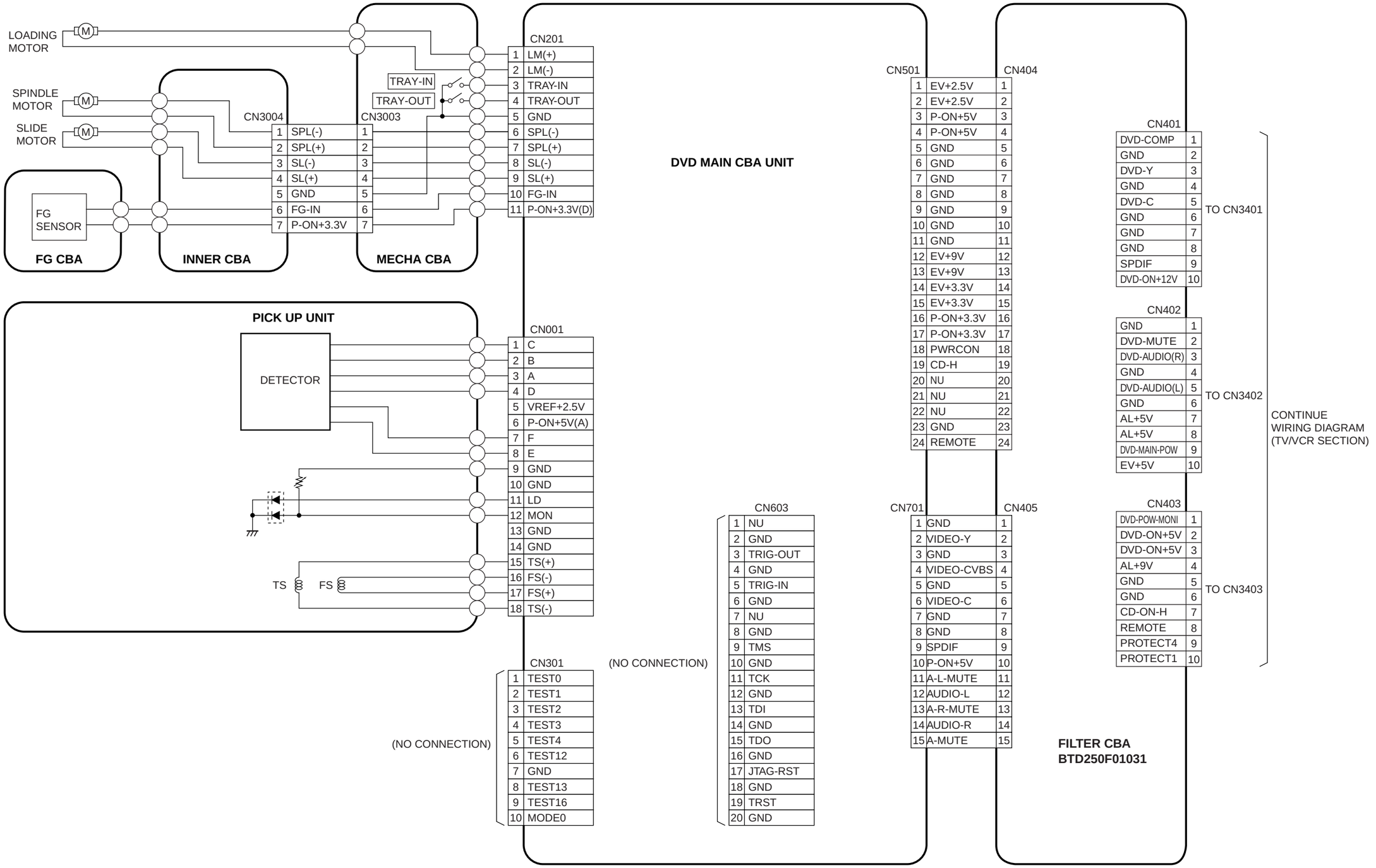
WF28 1DIV: 1V 0.5msec
Pin 7 of IC801

NOTE:
Input
CD: 1KHz PLAY
(WF25~WF28)
DVD: BLUE BACK (STOP MODE)
(WF18~WF24)

WIRING DIAGRAM <TV/VCR Section>



WIRING DIAGRAM <DVD Section>

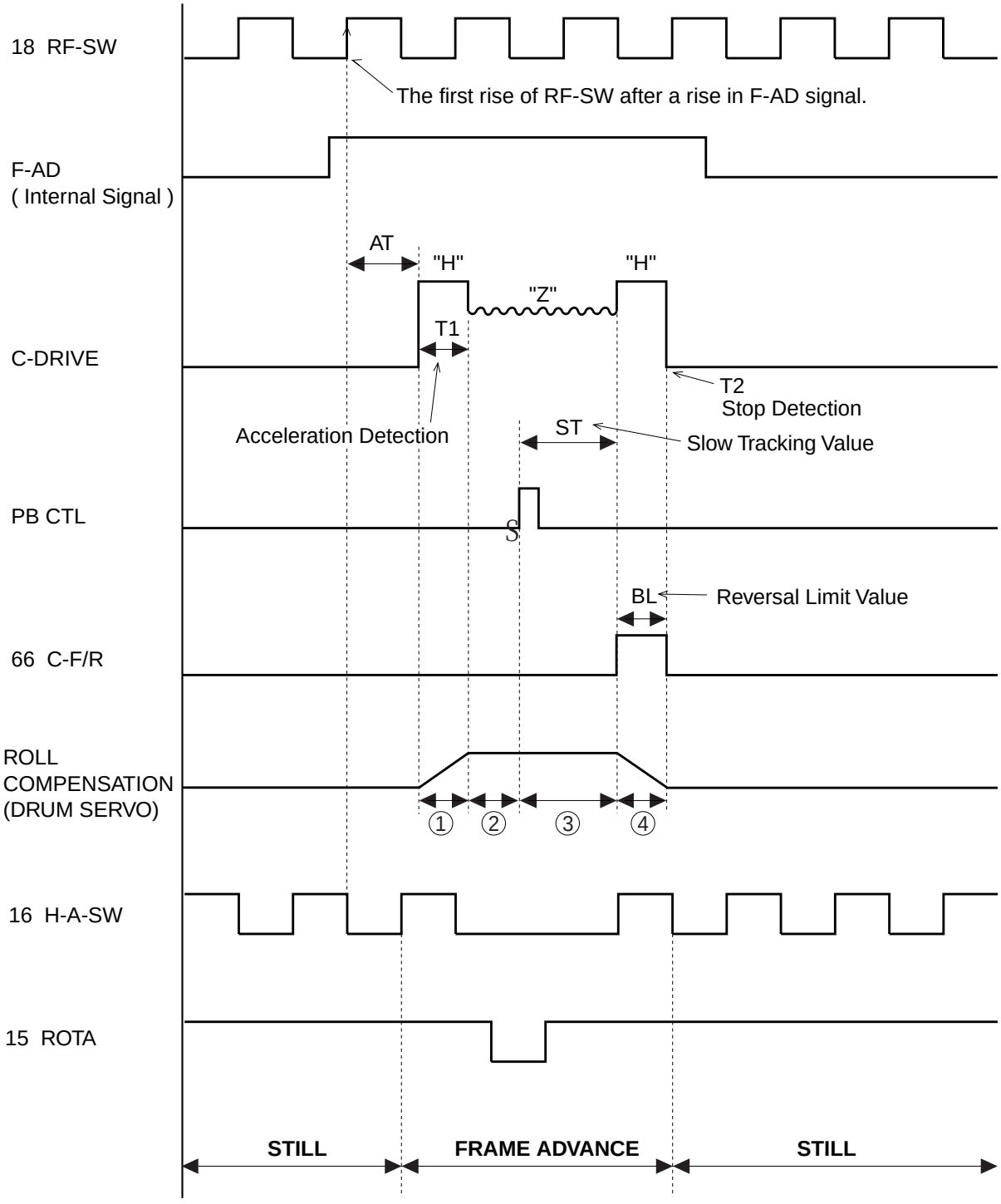


SYSTEM CONTROL TIMING CHARTS

< VCR Section >

Still/Slow control
Frame Advance Timing Chart

1) SP Mode



2) LP Mode

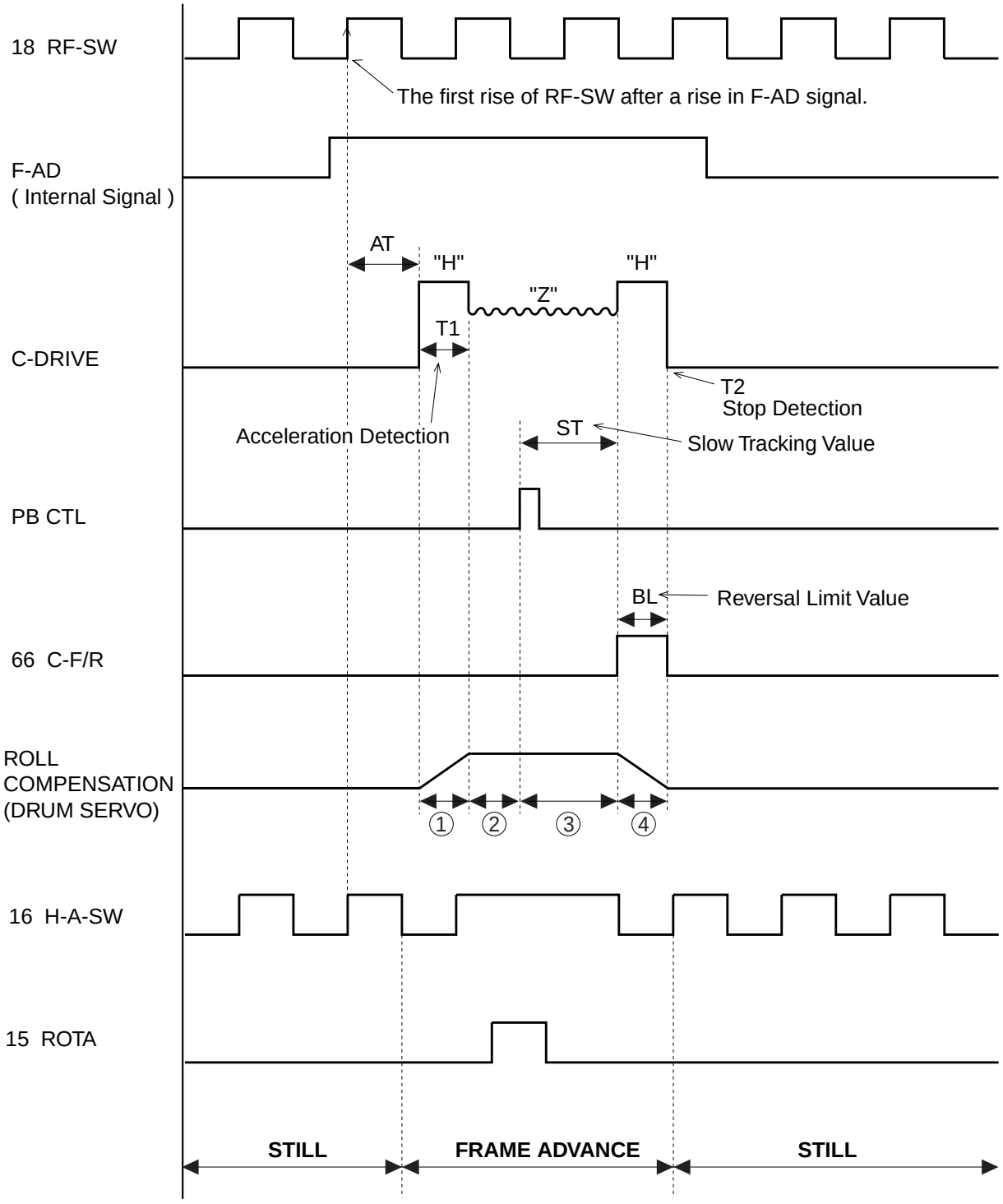

18 RF-SW
The first rise of RF-SW after a rise in F-AD signal.
F-AD
(Internal Signal)
AT
"H"
"H"
"Z"
T1
C-DRIVE
T2
Stop Detection
Acceleration Detection
ST
Slow Tracking Value
PB CTL
BL
Reversal Limit Value
66 C-F/R
ROLL
COMPENSATION
(DRUM SERVO)
①
②
③
④
16 H-A-SW
15 ROTA
STILL
FRAME ADVANCE
STILL

Chart 1

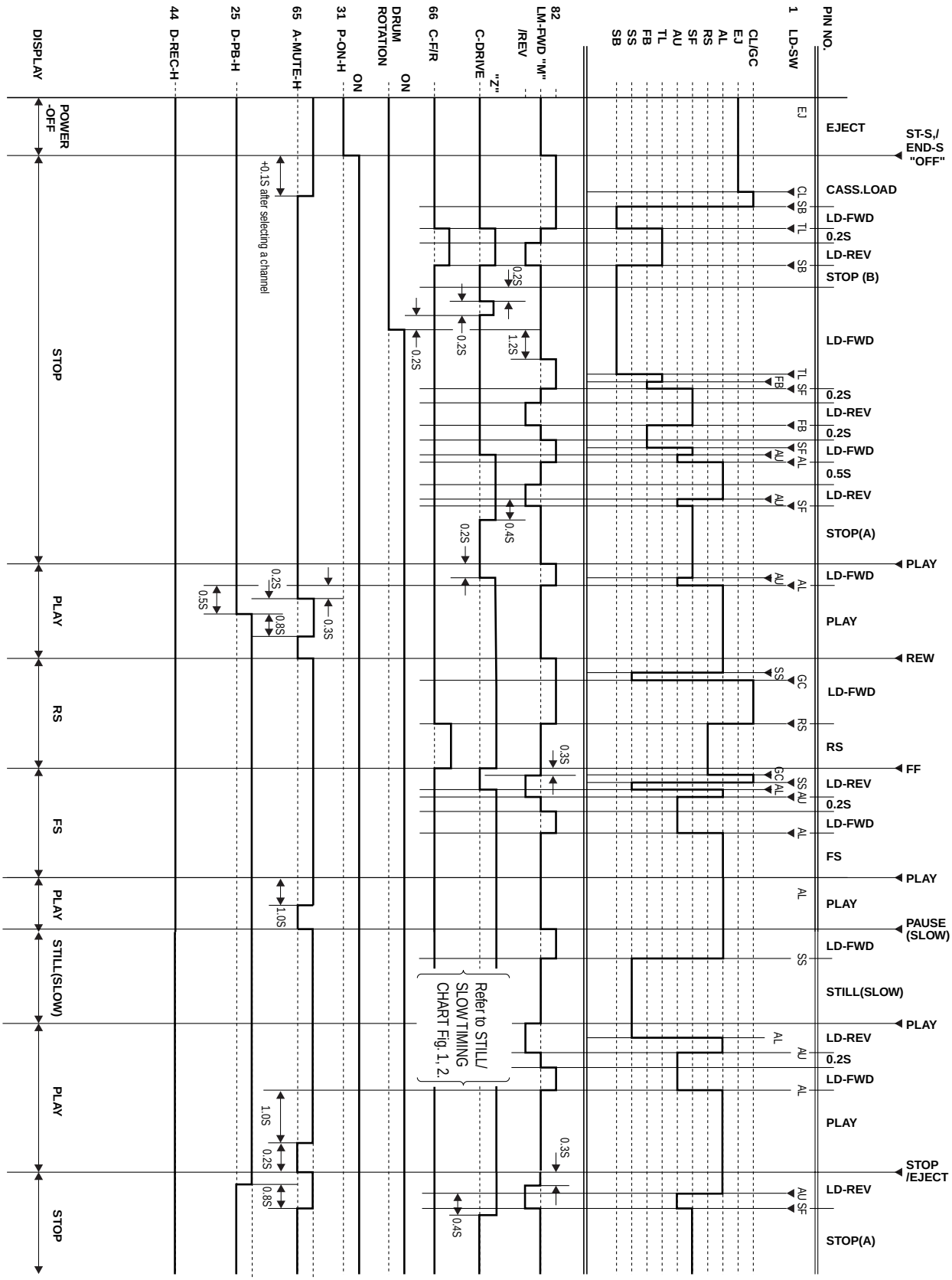
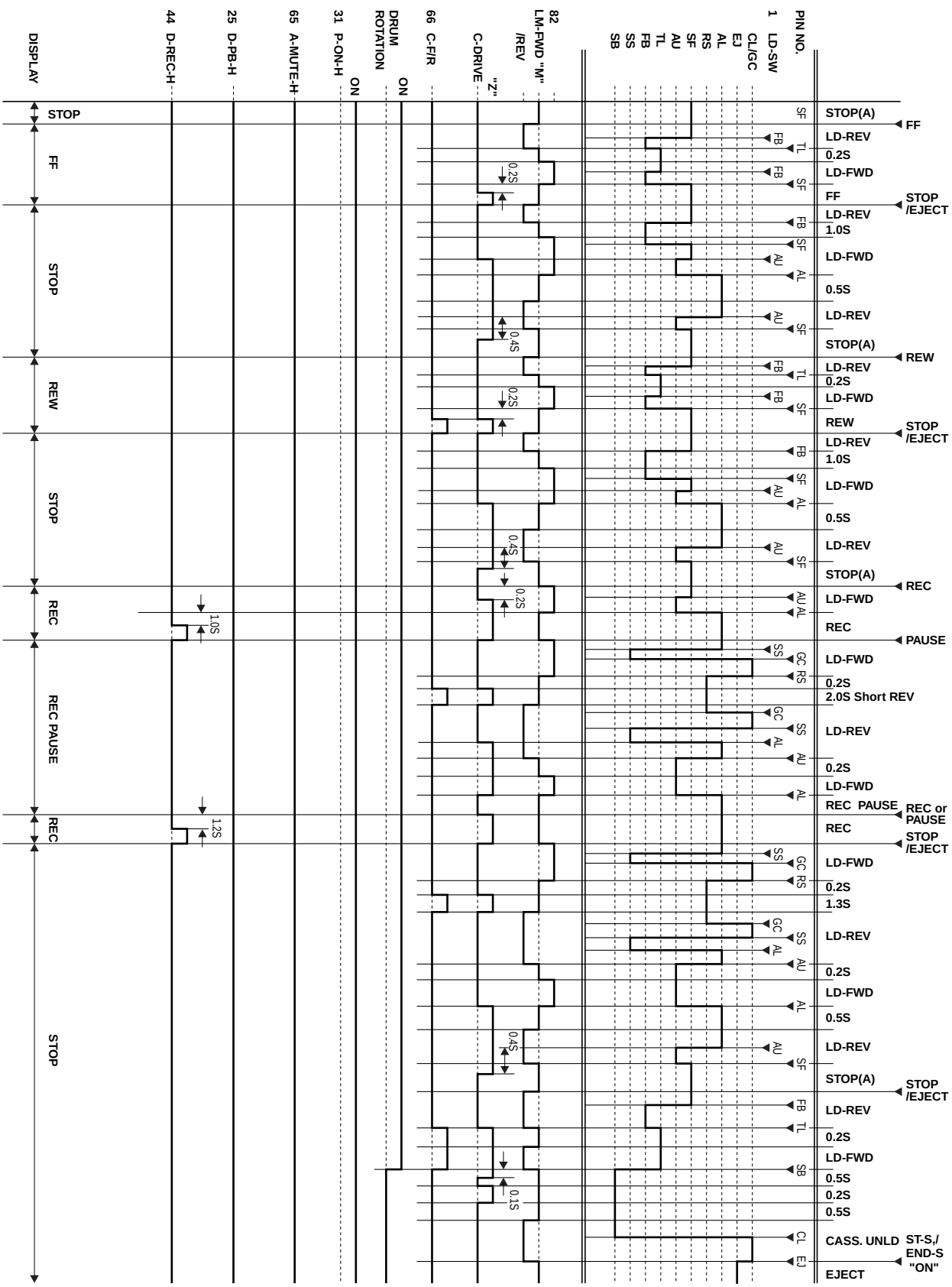
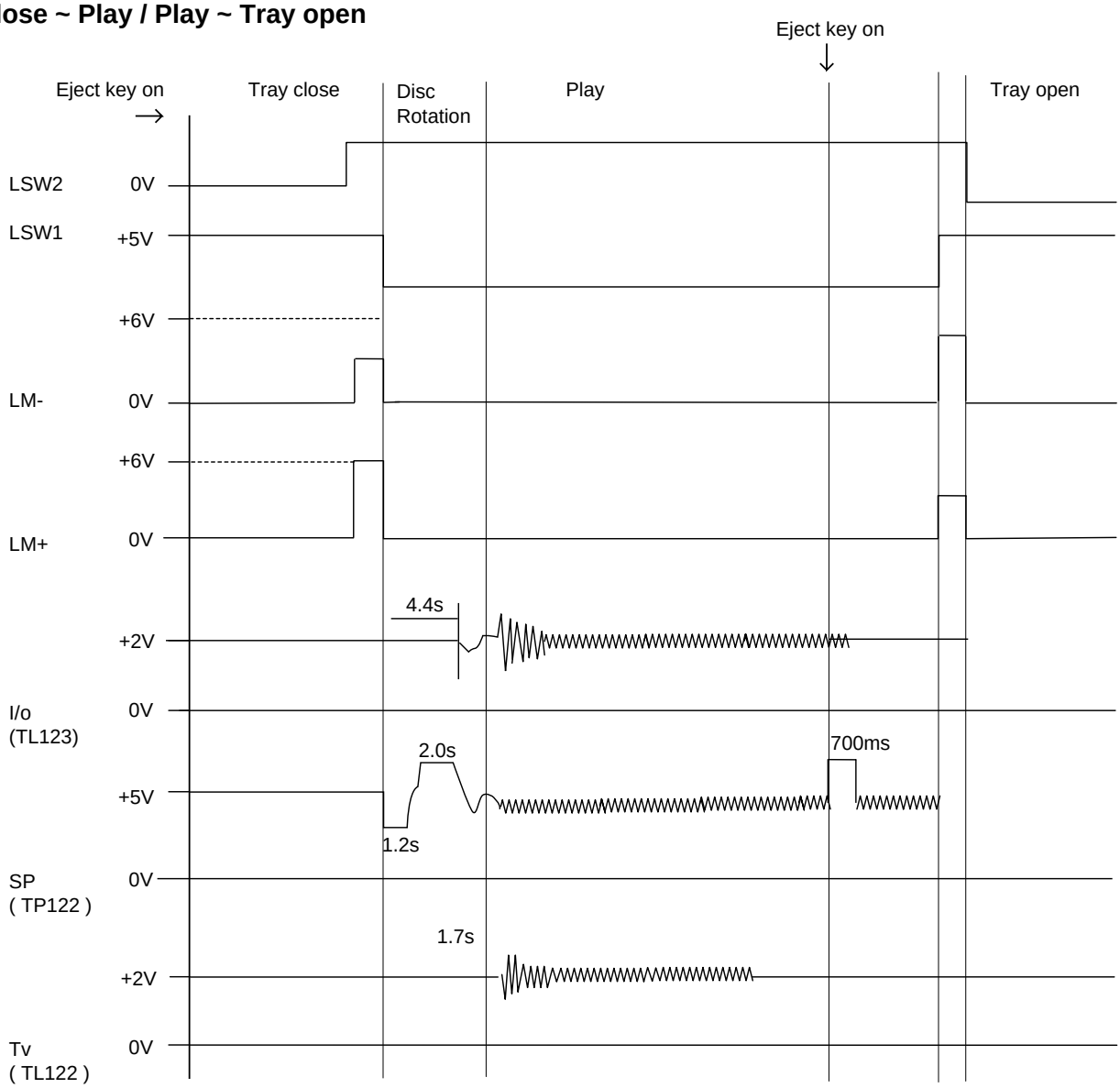

1. EJECT (POWER OFF) -> CASSETTE IN (POWER ON) -> STOP(B) -> STOP(A) -> PLAY -> RS -> FS -> PLAY -> STILL(SLOW) -> PLAY -> STOP(A)
PIN NO.
1 LD-SW
CL/GC
EJ
AL
RS
SF
AU
TL
FB
SS
SB
82 LM-FWD "M" /REV
C-DRIVE "Z"
66 C-F/R
DRUM ROTATION
31 P-ON-H
65 A-MUTE-H
25 D-PB-H
44 D-REC-H
DISPLAY
POWER -OFF
ST-S,/ END-S "OFF"
EJECT
CASS.LOAD
LD-FWD
0.2S
LD-REV
STOP (B)
LD-FWD
0.2S
LD-REV
0.2S
LD-FWD
0.5S
LD-REV
STOP(A)
PLAY
LD-FWD
PLAY
REW
LD-FWD
RS
FF
LD-REV
0.2S
LD-FWD
FS
PLAY
PLAY
PAUSE (SLOW)
LD-FWD
STILL(SLOW)
PLAY
LD-REV
0.2S
LD-FWD
PLAY
STOP /EJECT
LD-REV
STOP(A)
STOP
PLAY
RS
FS
PLAY
STILL(SLOW)
PLAY
STOP
+0.1S after selecting a channel
0.2S
1.2S
0.4S
0.3S
0.5S
0.8S
1.0S
Refer to STILL/ SLOW TIMING CHART Fig. 1, 2.

Chart 2


2. STOP(A) -> FF -> STOP(A) -> REW -> STOP(A) -> REC -> PAUSE -> PAUSE or REC -> STOP(A) -> EJECT
PIN NO.
1 LD-SW
CL/GC
EJ
AL
RS
SF
AU
TL
FB
SS
SB
82 LM-FWD "M" /REV
66 C-F/R
C-DRIVE "Z"
DRUM ROTATION
31 P-ON-H
65 A-MUTE-H
25 D-PB-H
44 D-REC-H
DISPLAY
STOP
FF
STOP
REW
STOP
REC
REC PAUSE
REC
STOP
STOP(A)
LD-REV
0.2S
LD-FWD
FF
LD-REV
1.0S
LD-FWD
0.5S
LD-REV
STOP(A)
LD-REV
0.2S
LD-FWD
REW
LD-REV
1.0S
LD-FWD
0.5S
LD-REV
STOP(A)
LD-FWD
REC
PAUSE
LD-FWD
0.2S
2.0S Short REV
LD-REV
0.2S
LD-FWD
REC PAUSE
REC
STOP
LD-FWD
0.2S
1.3S
LD-REV
0.2S
LD-FWD
0.5S
LD-REV
STOP(A)
LD-REV
0.2S
LD-FWD
0.5S
0.2S
0.5S
CASS. UNLD
EJECT
FF
STOP /EJECT
REW
STOP /EJECT
REC
PAUSE
REC or PAUSE
STOP /EJECT
STOP /EJECT
ST-S,/ END-S "ON"
0.2S
0.4S
0.2S
0.4S
0.2S
0.4S
1.0S
1.2S
0.1S
ON
ON

< DVD Section >

Tray close ~ Play / Play ~ Tray open



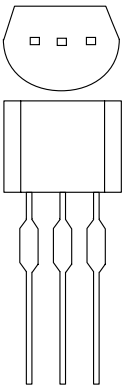
IC PIN FUNCTION DESCRIPTIONS

IC1201 (TV/VCR Micro Computer)

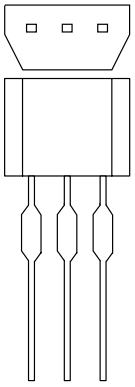
Pin No.	In/ Out	Signal Name	Function
1	In	LD-SW	Loading Switch Input
2	In	P-SAFETY 1	Power Supply Failure Detection 1
3	In	P-SAFETY 2	Power Supply Failure Detection 2
4	Out	ST/SAP-IN	Tuner Stereo/Sap Detector Signal Input
5	In	KEY0	Key 0 Input
6	In	KEY1	Key 1 Input
7	In	END-SENS	End-Sensor
8	In	KEY2	Key 2 Input
9	In	ST-SENS	Start-Sensor
10	In	V-ENV	Video Envelope Input
11	Out	AGC	Tuner Auto Gain Control
12	-	NU	Not Used
13	In/ Out	D-V SYNC	Artificial V-Sync Output
14	In	REMOTE	Remote signal Input
15	Out	ROTA	ROTA Output
16	Out	V-H-SW	Video head Switch
17	In	ENV-DET	Envelope Detection
18	Out	RF-SW	RF-SW Output
19	Out	HiFi-SW	HiFi Head Switch
20	Out	EXT-L	External Input Low
21	-	NU	Not Used
22	-	NU	Not Used
23	Out	REC-LED	Recording LED
24	-	NU	Not Used
25	Out	REM-OUT	Remote Control Signal to DVD
26	In	TV/VCR-LED	TV/VCR Mode LED Indicate
27	In/ Out	REC/EE/ PB	YCA IC Mode Output
28	In/ Out	TAPE-SPEED	Tape Speed Output
29	Out	EXT-H	External Input or Playback = Output
30	In/ Out	RENTAL	Rental Position Output
31	Out	P-ON-H	P-ON Output
32	Out	SPL-PLAY	Special Playback Output
33	In	REC-SAFETY	Record Protection Tab Detection
34	In	RESET	Reset
35	In	Xc-in	Oscillator C Input
36	Out	Xc-out	Oscillator C Output
37	--	Timer +5	Timer+5V In
38	In	X-in	Oscillator Input
39	Out	X-out	Oscillator Output
40	--	GND	GND
41	Out	SPOT-KILL	Counter-measure for Spot
42	In	DVD-MAIN-PWR	Power On Signal to High for DVD
43	In	CLKSEL	Clock Select
44	Out	D-REC-H	Recording Output
45	In	I2C-OPEN	White Balance Adjust Mode Judgment
46	--	GND	GND
47	--	NU	Not used
48	Out	DVD-H	
49	--	GND	OSD GND
50	In	DVD-PWR-MNT	DVD Power On Monitor
51	In	NORMAL-H	Audio Mode Input Signal
52	In	CH-UP-KEY	Chanel Up Key Input
53	--	P-ON +5V	OSD Vcc
54	--	HLF	HLF
55	In	V-HOLD	VHOLD
56	In	C-VIDEO	Video Signal Input
57	--	GND	GND
58	In	H-SYNC	H-Sync Input
59	In	V-SYNC	V-Sync Input
60	Out	OSD-BLK	Picture Shut Down Output
61	Out	DG-ON-H	Degaussing Coil Control Signal
62	Out	OSD-B	Blue Output

Pin No.	In/ Out	Signal Name	Function
63	Out	OSD-G	Green Output
64	Out	OSD-R	Red Output
65	Out	A-MUTE-H	Audio Mute Output
66	Out	C-F/R	Capstan Direction Output
67	--	NU	Not used
68	Out	HiFi S-OUT	HiFi Communication Data
69	Out	HiFi-CS	HiFi IC Chip Select
70	Out	HiFi-SCLK	HiFi Communication Clock
71	Out	SCL	E2PROM/CHROMA IC Tuner Communication Clock
72	In/ Out	SDA	E2PROM/CHROMA IC Tuner Communication Data
73	--	NU	Not used
74	In	C-SYNC	C-SYNC out
75	Out	VOLUME	Output Volume Control Signal
76	Out	C-CONT	Capstan Control Output
77	Out	D-CONT	Drum Control Output
78	Out	P-SAFETY3	Power Supply Failure Detection 1
79	--	NU	Not used
80	In	T-REEL	Take up Reel Pulse in
81	In	SP-MUTE	Speaker Mute Signal
82	In/ Out	LM-FWD/REV	Loading Motor FWD/REV Output
83	--	NU	Not used
84	Out	P-DOWN-L	Power Down Detection
85	In	RN-CODE	Remote Control Code Select
86	In	CH-DOWN-KEY	Channel Down Key
87	In	C-FG	Capstan-FG Input
88	--	GND	GND (AMP)
89	In	D-FG	Drum-FG Input
90	In	D-PG	Drum-PG Input
91	--	NU	Not used
92	In	AMP-V-REF-IN	Standard Voltage Input
93		C	Ext. Capacitor Connection Port for Analog Amp
94	I/O	CTL (-)	CTL (-)
95	I/O	CTL (+)	CTL (+)
96		AMPC	AMPC
97	Out	CTL AMPout	CTL Amp Output
98	--	+5V	Power Supply for AMP
99	--	ALL+5V	A/D, D/A Standard Voltage
100	In	AFT	Automatic Fine Tuning

LEAD IDENTIFICATION

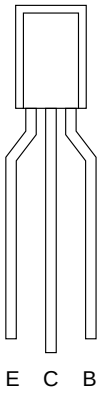


BN1F4M-T
KTA1266 (GR)
KTA1267 (GR)
2SA-1318(T.U)-AANP
2SA1175(F.E)
2SC1815-GR (TPE2)
2SA950 (O.Y)
2SC2271(E.D)-(AEMP.AE)
2SC3468 (E.D)-AE
2SC3331 (T.U)
2SC2120-(O.Y) (TPE2)
2SC2482-TPE6
2SC1627Y-TPE2
2SD400(F)

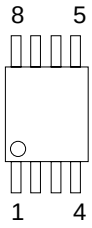


2SC2785 (J, H, F)
KTC3199 (GR)
BA1F4M-T
2SC3400
KRC103M
2SA1015-GR (TPE2)
KTC3198GR TO-92
KRA103M
2SA1346

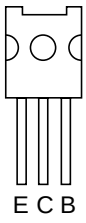
2SC536NF(NG)-NPA-AT



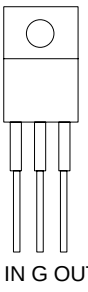
NJM4558D



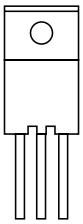
2SC3619
KTC3229



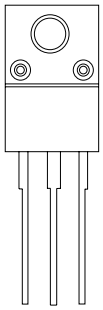
KIA7805API
AN7805F



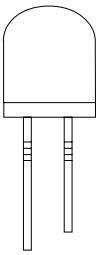
2SD1825
KTD2059 (O,Y)
2SD2634
2SD2578



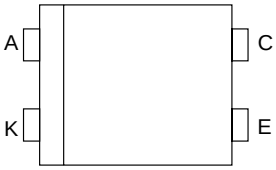
2SK2662
2SK3407



PT204-6B-12
ST-304L-(A,B,C)



LTV-817(B.C)-F
PC817X6



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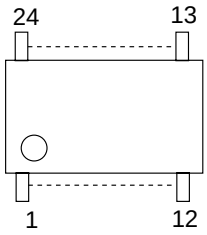

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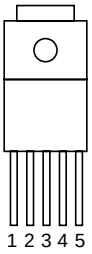
BA00AST-V5



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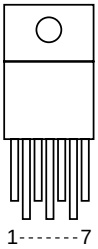
LA78045



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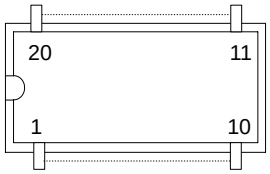

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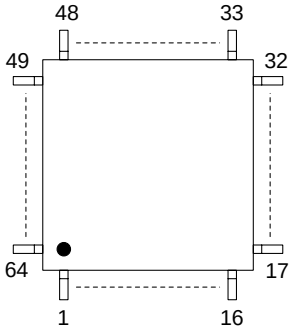

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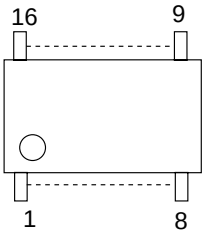

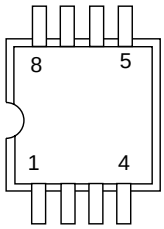

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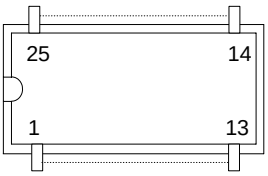
BR24C02F-W
AT24C02N-10SC
M24C02-MN6

BD6655FP



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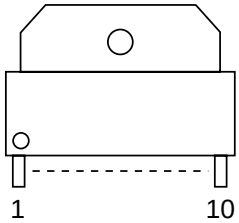

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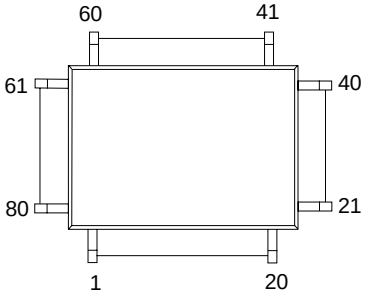
LA72653M-F



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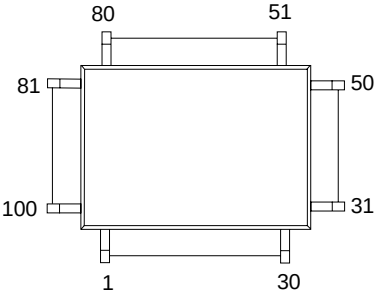
LA71091M



Note:
A: Anode
K: Cathode
E: Emitter
C: Collector
B: Base
R: Reference
1 VCC
2 GND
3 OUT

DECK MECHANISM SECTION

27" COLOR TV/DVD/VCR

6727DB

Sec. 2: Deck Mechanism Section

- **Standard Maintenance**
- **Alignment for Mechanism**
- **Disassembly/Assembly of Mechanism**
- **Alignment Procedures of Mechanism**

TABLE OF CONTENTS

Standard Maintenance 2-1-1
Service Fixtures and Tools 2-2-1
Mechanical Alignment Procedures 2-3-1
Disassembly / Assembly Procedures of Deck Mechanism 2-4-1
Alignment Procedures of Mechanism 2-4-9

STANDARD MAINTENANCE

Service Schedule of Components

H: Hours ❍: Check ●: Change

Deck		Periodic Service Schedule			
Ref. No.	**Part Name**	**1,000 H**	**2,000 H**	**3,000 H**	**4,000 H**
B2	Cylinder Assembly	❍	●	❍	●
B3	Loading Motor Assembly			●	
B8	Pulley Assembly		●		●
B27	Tension Lever Sub Assembly		●		●
B31	AC Head Assembly			●	
B573, B574	Reel (S), Reel (T)			●	
B37	Capstan Motor		●		●
B52	Cap Belt		●		●
*B73	FE Head			●	
B133	Idler Assembly		●		●
B410	Pinch Arm (A) Assembly		●		●
B414	M Brake S Assembly		●		●
B416	M Brake T Assembly		●		●
B525	LDG Belt		●		●

Notes:

1. Clean all parts for the tape transport (Upper Drum with Video Head / Pinch Roller / Audio Control Head / Full Erase Head) using 90% Isopropyl Alcohol.
2. After cleaning the parts, do all DECK ADJUSTMENTS.
3. For the reference numbers listed above, refer to Deck Exploded Views.

   * B73 ------ VCR Model only

Cleaning

Cleaning of Video Head

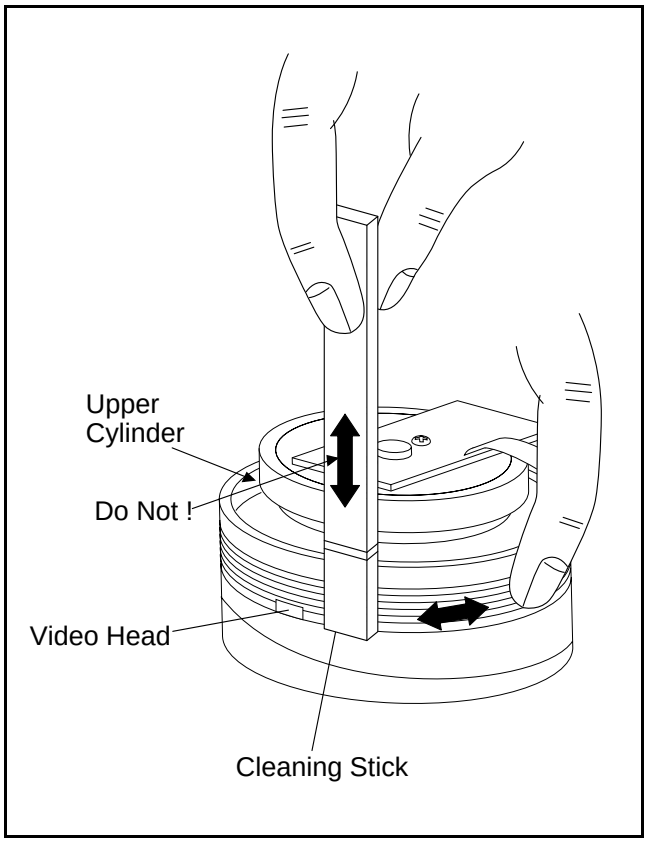
Clean the head with a head cleaning stick or chamois cloth.

Procedure

1. Remove the top cabinet.
2. Put on a glove (thin type) to avoid touching the upper and lower drum with your bare hand.
3. Put a few drops of 90% Isopropyl alcohol on the head cleaning stick or on the chamois cloth and, by slightly pressing it against the head tip, turn the upper drum to the right and to the left.

Notes:

1. The video head surface is made of very hard material, but since it is very thin, avoid cleaning it vertically.
2. Wait for the cleaned part to dry thoroughly before operating the unit.
3. Do not reuse a stained head cleaning stick or a stained chamois cloth.



Cleaning of Audio Control Head

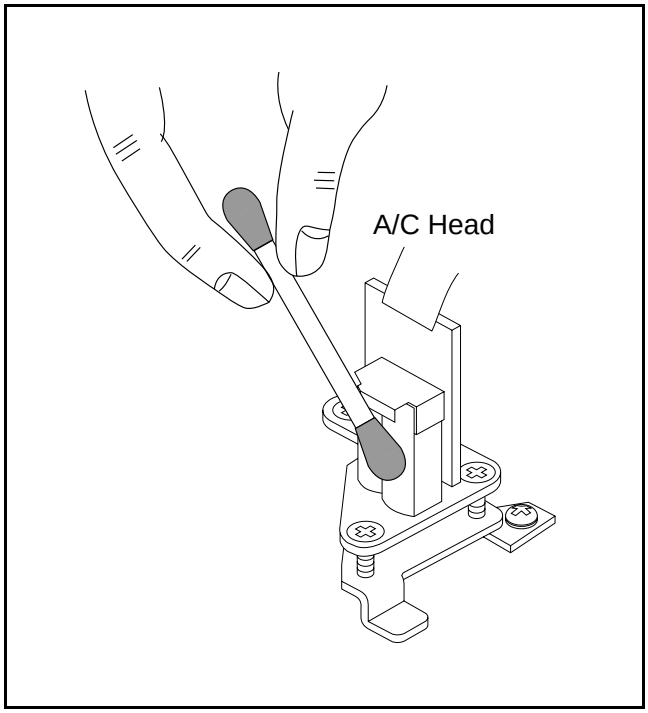
Clean the head with a cotton swab.

Procedure

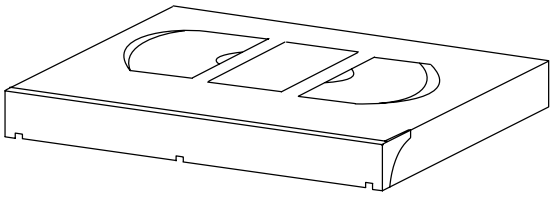
1. Remove the top cabinet.
2. Dip the cotton swab in 90% isopropyl alcohol and clean the audio control head. Be careful not to damage the upper drum and other tape running parts.

Notes:

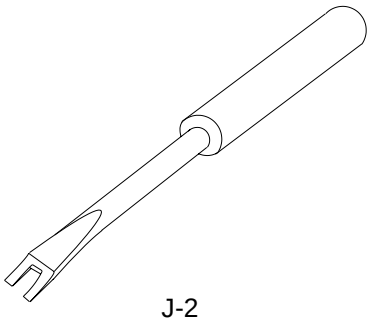
1. Avoid cleaning the audio control head vertically.
2. Wait for the cleaned part to dry thoroughly before operating the unit or damage may occur.



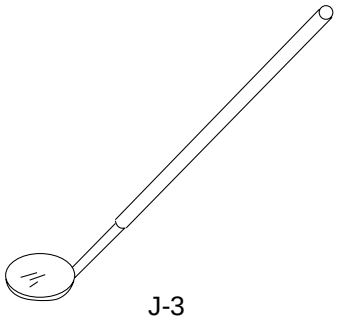
SERVICE FIXTURE AND TOOLS



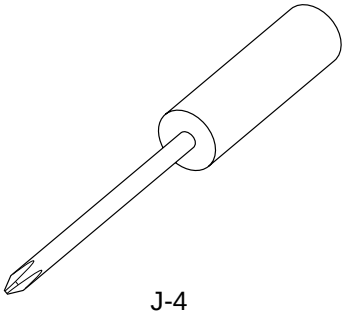
J-1-1, J-1-2



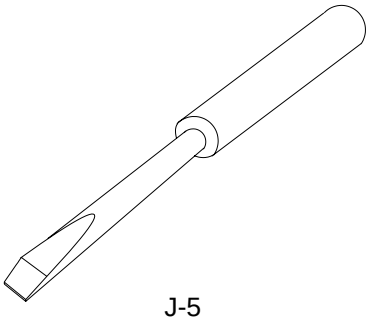
J-2



J-3



J-4



J-5

Ref. No.	Name	Part No.	Adjustment
J-1-1	Alignment Tape	FL8A	Head Adjustment of Audio Control Head
J-1-2	Alignment Tape	FL8N (2Head only) FL8NW (4Head only)	Azimuth and X Value Adjustment of Audio Control Head / Adjustment of Envelope Waveform
J-2	Guide Roller Adj.Screwdriver	FSJ-0006	Guide Roller
J-3	Mirror	FSJ-0004	Tape Transportation Check
J-4	Azimuth Adj.Screwdriver +	Available Locally	A/C Head Height
J-5	X Value Adj.Screwdriver -	Available Locally	X Value

MECHANICAL ALIGNMENT PROCEDURES

Explanation of alignment for the tape to correctly run starts on the next page. Refer to the information below on this page if a tape gets stuck, for example, in the mechanism due to some electrical trouble of the unit.

Service Information

A. Method for Manual Tape Loading/Unloading

To load a cassette tape manually:

1. Disconnect the AC plug.
2. Remove the Top Case and Front Assembly.
3. Insert a cassette tape. Though the tape will not be automatically loaded, make sure that the cassette tape is all the way in at the inlet of the Cassette Holder. To confirm this, lightly push the cassette tape further in and see if the tape comes back out, by a spring motion, just as much as you have pushed in.
4. Turn the LDG Belt in the appropriate direction shown in Fig. M1 for a minute or two to complete this task.

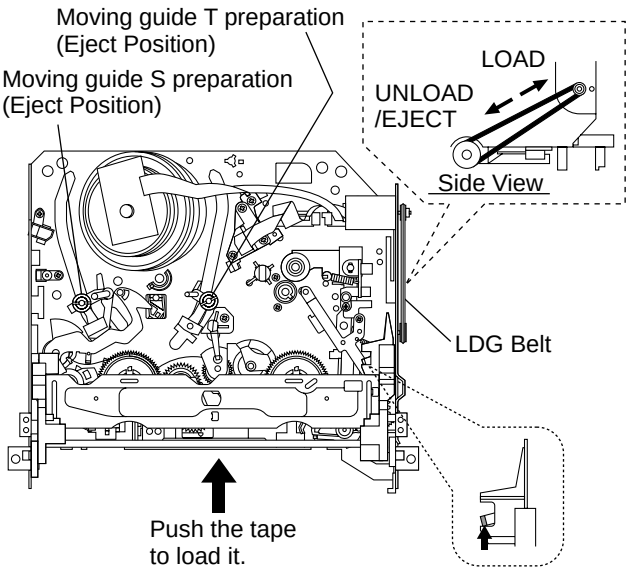
To unload a cassette tape manually:

1. Disconnect the AC plug.
2. Remove the Top Case and Front Assembly.
3. Make sure that the Moving guide preparations are in the Eject Position.
4. Turn the LDG Belt in the appropriate direction shown in Fig. M1 until the Moving guide preparations come to the Eject Position. Stop turning when the preparations begin clicking or can not be moved further. However, the tape will be left wound around the cylinder.
5. Turn the LDG Belt in the appropriate direction continuously, and the cassette tape will be ejected. Allow a minute or two to complete this task.

B. Method to place the Cassette Holder in the tape-loaded position without a cassette tape

1. Disconnect the AC Plug.
2. Remove the Top Case and Front Assembly.
3. Turn the LDG Belt in the appropriate direction shown in Fig. M1. Release the locking tabs shown in Fig. M1 and continue turning the LDG Belt until the Cassette Holder comes to the tape-loaded position. Allow a minute or two to complete this task.

Top View



Push the locking tab gently to unlock when loading without a cassette.

Fig. M1

Bottom View

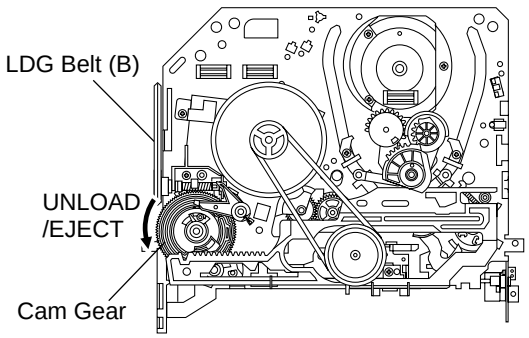


Fig. M2

1. Tape Interchangeability Alignment

Note:

To do these alignment procedures, make sure that the Tracking Control Circuit is set to the center position every time a tape is loaded or unloaded. (Refer to page 2-3-4, procedure 1-C, step 2.)

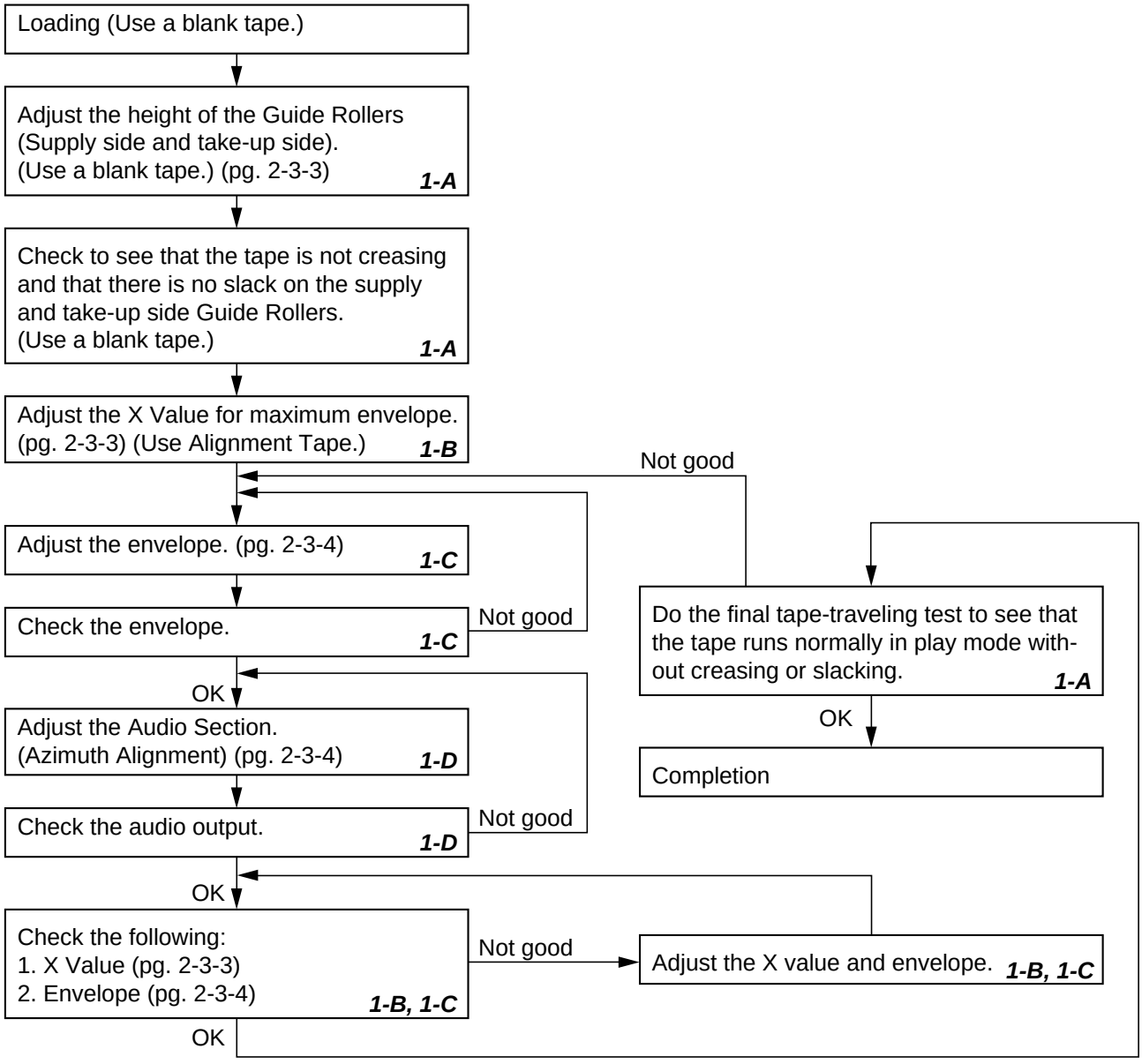
Equipment required:

Dual Trace Oscilloscope
VHS Alignment Tape (FL8NW)

Guide Roller Adj. Screwdriver
X-Value Adj. Screwdriver

Note: Before starting this Mechanical Alignment, do all Electrical Adjustment procedures.

Flowchart of Alignment for tape traveling


Loading (Use a blank tape.)
Adjust the height of the Guide Rollers (Supply side and take-up side). (Use a blank tape.) (pg. 2-3-3) 1-A
Check to see that the tape is not creasing and that there is no slack on the supply and take-up side Guide Rollers. (Use a blank tape.) 1-A
Adjust the X Value for maximum envelope. (pg. 2-3-3) (Use Alignment Tape.) 1-B
Not good
Adjust the envelope. (pg. 2-3-4) 1-C
Check the envelope. 1-C
Not good
OK
Adjust the Audio Section. (Azimuth Alignment) (pg. 2-3-4) 1-D
Check the audio output. 1-D
Not good
OK
Check the following:
1. X Value (pg. 2-3-3)
2. Envelope (pg. 2-3-4) 1-B, 1-C
Not good
Adjust the X value and envelope. 1-B, 1-C
OK
Do the final tape-traveling test to see that the tape runs normally in play mode without creasing or slacking. 1-A
OK
Completion

1-A. Preliminary/Final Checking and Alignment of Tape Path

Purpose:

To make sure that the tape path is well stabilized.

Symptom of Misalignment:

If the tape path is unstable, the tape will be damaged.

Note: Do not use an Alignment Tape for this procedure. If the unit is not correctly aligned, the tape may be damaged.

1. Play back a blank cassette tape and check to see that the tape runs without creasing at Guide Rollers [2] and [3], and at points A and B on the lead surface. (Refer to Fig M3 and M4.)
2. If creasing is apparent, align the height of the guide rollers by turning the top of Guide Rollers [2] and [3] with a Guide Roller Adj. Screwdriver. (Refer to Fig. M3 and M5.)
   Note: Beneath each Guide Roller, there is a small screw. (Refer to Fig. M5.) This screw works to apply adequate torque to the shaft of each Guide Roller so that the Guide Roller turns properly. Even when adjusting the height of the Guide Roller(s), do not touch these two small screws.
3. Check to see that the tape runs without creasing at Take-up Guide Post [4] or without snaking between Guide Roller [3] and AC Head. (Fig. M3 and M5)
4. If creasing or snaking is apparent, adjust the Tilt Adj. Screw of the AC Head. (Fig. M6)

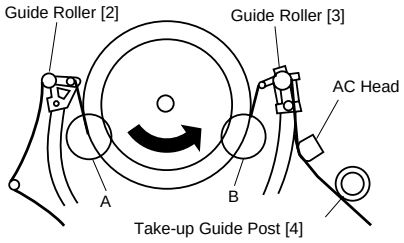


Fig. M3

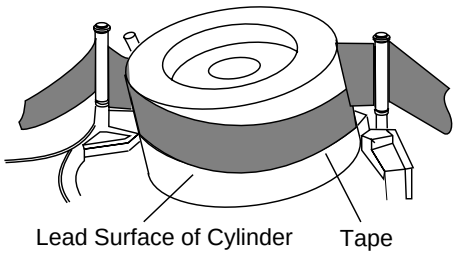


Fig. M4

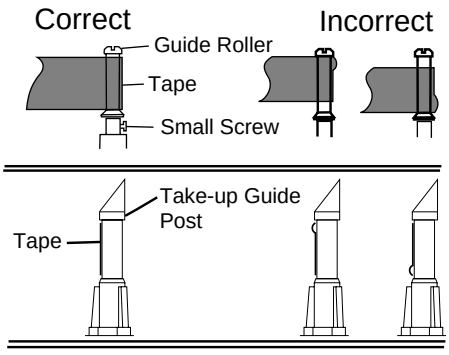


Fig. M5

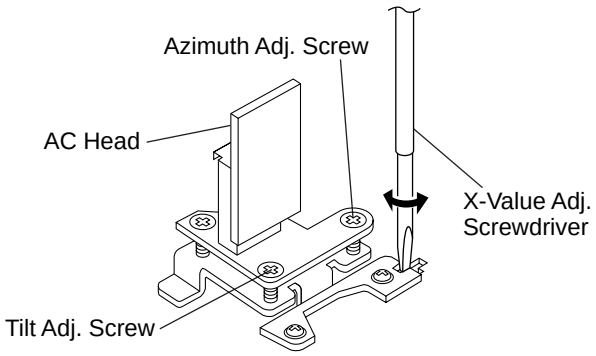


Fig. M6

1-B. X Value Alignment

Purpose:

To align the Horizontal Position of the Audio/Control/Erase Head.

Symptom of Misalignment:

If the Horizontal Position of the Audio/Control/Erase Head is not properly aligned, maximum envelope cannot be obtained at the Neutral position of the Tracking Control Circuit.

1. Connect the oscilloscope to TP1801 (C-PB) and TP1201 (CTL) on the Main CBA. Use TP1401 (RF-SW) as a trigger.
2. Play back the Gray Scale of the Alignment Tape (FL8NW) and confirm that the PB FM signal is present.
3. Set the Tracking Control Circuit to the center position by pressing the CH UP button then the PLAY button on the VCR. (Refer to note on bottom of page 2-3-4.)
4. Use the X-Value Adj. Screwdriver so that the PB FM signal at TP1801 (C-PB) is maximum. (Fig. M6)
5. Press CH UP button on the VCR until the CTL waveform has shifted by approx. +2msec. Make sure that the envelope is simply attenuated (shrinks in height) during this process so that you will know the envelope has been at its peak.

6. Press CH DOWN button on the VCR until the CTL waveform has shifted from its original position (not the position achieved in step 5, but the position of CTL waveform in step 4) by approximately -2msec. Make sure that the envelope is simply attenuated (shrinks in height) once CTL waveform passes its original position and is further brought in the minus direction.
7. Set the Tracking Control Circuit to the center position by pressing the CH UP button and then the PLAY button on the VCR.

1-C. Checking/Adjustment of Envelope Waveform

Purpose:

To achieve a satisfactory picture and precise tracking.

Symptom of Misalignment:

If the envelope output is poor, noise will appear in the picture. The tracking will then lose precision and the playback picture will be distorted by any slight variation of the Tracking Control Circuit.

1. Connect the oscilloscope to TP1801 (C-PB) on the Main CBA. Use TP1401 (RF-SW) as a trigger.
2. Play back the Gray Scale on the Alignment Tape (FL8NW). Set the Tracking Control Circuit to the center position by pressing the CH UP and then the PLAY button on the VCR. Adjust the height of Guide Rollers [2] and [3] (Fig. M3, Page 2-3-3) watching the oscilloscope display so that the envelope becomes as flat as possible. To do this adjustment, turn the top of the Guide Roller with the Guide Roller Adj. Screwdriver.
3. If the envelope is as shown in Fig. M7, adjust the height of Guide Roller [2] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M9.
4. If the envelope is as shown in Fig. M8, adjust the height of Guide Roller [3] (Refer to Fig. M3) so that the waveform looks like the one shown in Fig. M9.
5. When Guide Rollers [2] and [3] (Refer to Fig.M3) are aligned properly, there is no envelope drop either at the beginning or end of track as shown in Fig. M9.

Note: Upon completion of the adjustment of Guide Rollers [2] and [3] (Refer to Fig. M3), check the X Value by pushing the CH UP or DOWN buttons alternately, to check the symmetry of the envelope. Check the number of pushes to ensure center position. The number of pushes UP to achieve 1/2 level of envelope should match the number of pushes DOWN from center. If required, redo the "X Value Alignment."

1-D. Azimuth Alignment of Audio/Control/ Erase Head

Purpose:

To correct the Azimuth alignment so that the Audio/Control/Erase Head meets tape tracks properly.

Symptom of Misalignment:

If the position of the Audio/Control/Erase Head is not properly aligned, the Audio S/N Ratio or Frequency Response will be poor.

1. Connect the oscilloscope to the audio output jack on the rear side of the deck.
2. Play back the alignment tape (FL8NW) and confirm that the audio signal output level is 8 kHz.
3. Adjust Azimuth Adj. Screw so that the output level on the AC Voltmeter or the waveform on the oscilloscope is at maximum. (Fig. M6)

Dropping envelope level at the beginning of track.

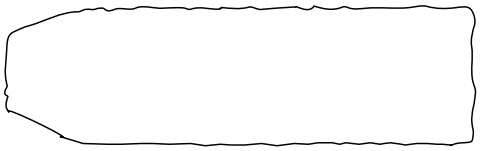


Fig. M7

Dropping envelope level at the end of track.

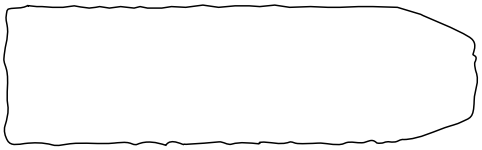


Fig. M8

Envelope is adjusted properly. (No envelope drop)

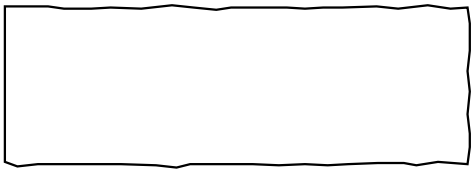


Fig. M9

DISASSEMBLY/ASSEMBLY PROCEDURES OF DECK MECHANISM

Before following the procedures described below, be sure to remove the deck assembly from the cabinet. (Refer to CABINET DISASSEMBLY INSTRUCTIONS on page 1-7-1.)

All the following procedures, including those for adjustment and replacement of parts, should be done in Eject mode; see the positions of [42] and [43] in Fig. DM1 on page 2-4-3. When reassembling, follow the steps in reverse order.

STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[1]	[1]	Cassette Holder Assembly	T	DM3	(S-0)	
[2]	[1]	Slider L	T	DM4	(S-1)	
[3]	[1]	Slider R	T	DM4	(S-2)	
[4]	[3]	Lock Lever	T	DM4	(S-3), *(P-1)	
[5]	[1]	Cassette Plate	T	DM4		
[6]	[6]	Cylinder Assembly	T	DM1, DM5	3(S-4), VH Connector A and B, Connector A and B	
[7]	[7]	Loading Motor Assembly	T	DM1, DM6	2(S-5), (S-6), LDG Belt, ACH Connector AN(9P) and 9B	
[8]	[1]	Tape Guide Assembly	T	DM1, DM7	*(P-2), (C-1)	
[9]	[9]	Door Opener B	T	DM1, DM7	(S-7), *(L-1)	
[10]	[9]	Pinch Arm (B) Assembly	T	DM1, DM7	*(P-3)	
[11]	[10]	Pinch Arm (A) Assembly	T	DM1, DM7		
[12]	[12]	FE Head	T	DM1, DM8	(S-8)	
[13]	[13]	First Post Assembly	T	DM1, DM8	(S-9)	
[14]	[14]	Prism	T	DM1, DM8	(S-10)	
[15]	[15]	Standard Post	T	DM1, DM8	*(L-2)	
[16]	[1]	Slider Shaft	T	DM9	(S-11), *(L-3)	
[17]	[16]	C Drive Lever L	T	DM9		
[18]	[16]	C Drive Lever R	T	DM9		
[19]	[19]	Capstan Motor	B	DM2, DM10	3(S-12), Cap Belt	
[20]	[20]	FF Arm Holder	B	DM2, DM11	(S-13)	
[21]	[20]	Clutch Assembly	B	DM2, DM11	(C-2)	
[22]	[20]	FF Arm	B	DM2, DM11		
[23a]	[23a]	Cam Holder	B	DM2, DM12	(C-3)	
[23b]	[23a]	F Brake Assembly	B	DM2, DM12		
[24]	[23b]	Cam Gear (B)	B	DM2, DM12	(C-4), *(P-4)	
[25]	[25]	Mode Gear	B	DM2, DM13	(C-5)	
[26]	[25]	Mode Lever	B	DM2, DM13	(C-6)	
[27]	[26]	Cam Gear (A)	B	DM2, DM13		
[28]	[27]	Pully Assembly	B	DM2, DM13		
[29]	[28]	Worm Holder	B	DM2, DM13	(S-14)	
[30]	[26]	Sensor Gear	B	DM1, DM14	(C-7)	
[31]	[26]	Idler Assembly	B	DM1, DM14		
[32]	[26]	BT Arm	B	DM2, DM14	*(P-5)	

STEP /LOC. No.	START-ING No.	PART		REMOVAL		INSTALLATION
				Fig. No.	REMOVE/*UNHOOK/ UNLOCK/RELEASE/ UNPLUG/DESOLDER	ADJUSTMENT CONDITION
[33]	[26]	Loading Arm S Assembly	B	DM2, DM14		(+) Refer to Alignment Sec. Pg. 2-4-9
[34]	[33]	Loading Arm T Assembly	B	DM2, DM14		(+) Refer to Alignment Sec. Pg. 2-4-9
[35]	[26]	M Brake T Assembly	T	DM1, DM15	*(P-6)	
[36]	[36]	M Brake S Assembly	T	DM1, DM15	*(P-7)	
[37]	[36]	Tension Lever Sub Assembly	T	DM1, DM15	*(P-8), (C-8)	
[38]	[37]	T Lever Holder	T	DM1, DM15	*(L-4)	
[39]	[1]	M Gear	T	DM1, DM15	(C-9)	
[40]	[35]	Reel T	T	DM1, DM15		
[41]	[37]	Reel S	T	DM1, DM15		
[42]	[41]	Moving Guide S Preparation	T	DM1, DM16	(S-15), Slide Holder S	
[43]	[34]	Moving Guide T Preparation	T	DM1, DM16	(S-16), Slide Holder T	
[44]	[19]	TG Post Assembly	T	DM1, DM16	*(L-5)	
[45]	[27]	Rack Assembly	R	DM17		(+) Refer to Alignment Sec. Pg. 2-4-10
[46]	[45]	F Door Opener A	R	DM17	*(P-9)	
[47]	[47]	Cleaner Lever Assembly	T	DM1,DM5		
[48]	[47]	CL Post	T	DM1,DM5	*(L-6)	
↓ ①	↓ ②	↓ ③	↓ ④	↓ ⑤	↓ ⑥	↓ ⑦

①: Follow steps in sequence. When reassembling, follow the steps in reverse order.
These numbers are also used as Identification (location) No. of parts in the figures.

②: Indicates the part to start disassembling with in order to disassemble the part in column (1).

③: Name of the part

④: Location of the part: T=Top B=Bottom R=Right L=Left

⑤: Figure Number

⑥: Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P=Spring, W=Washer, C=Cut Washer, S=Screw, *=Unhook, Unlock, Release, Unplug, or Desolder
e.g., 2(L-2) = two Locking Tabs (L-2).

⑦: Adjustment Information for Installation
(+): Refer to Deck Exploded Views for lubrication.

Top View

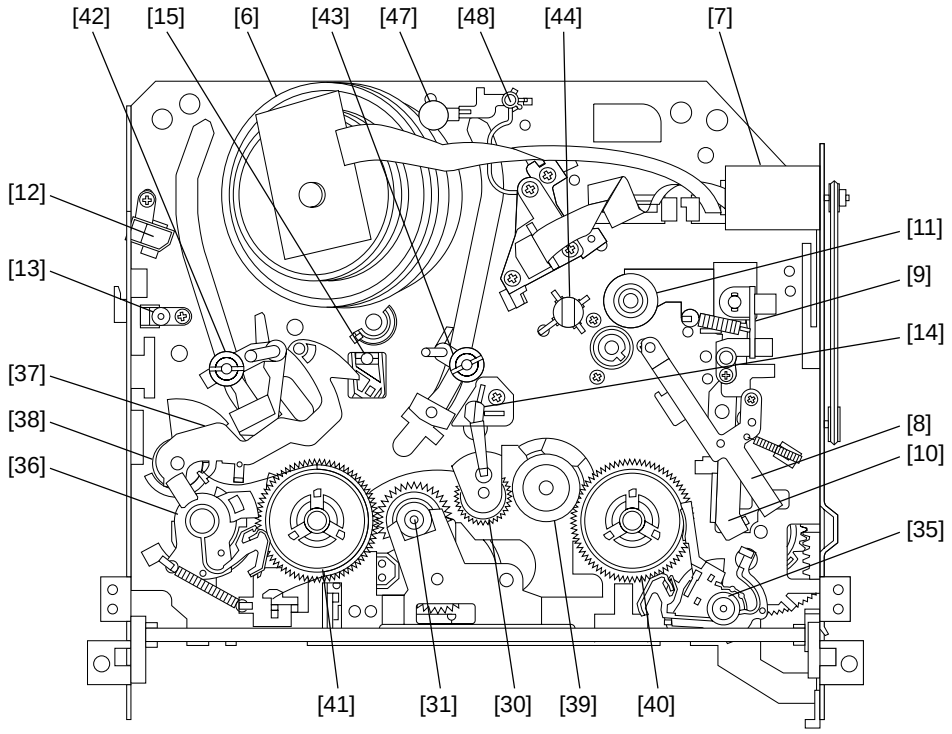


Fig. DM1

Bottom View

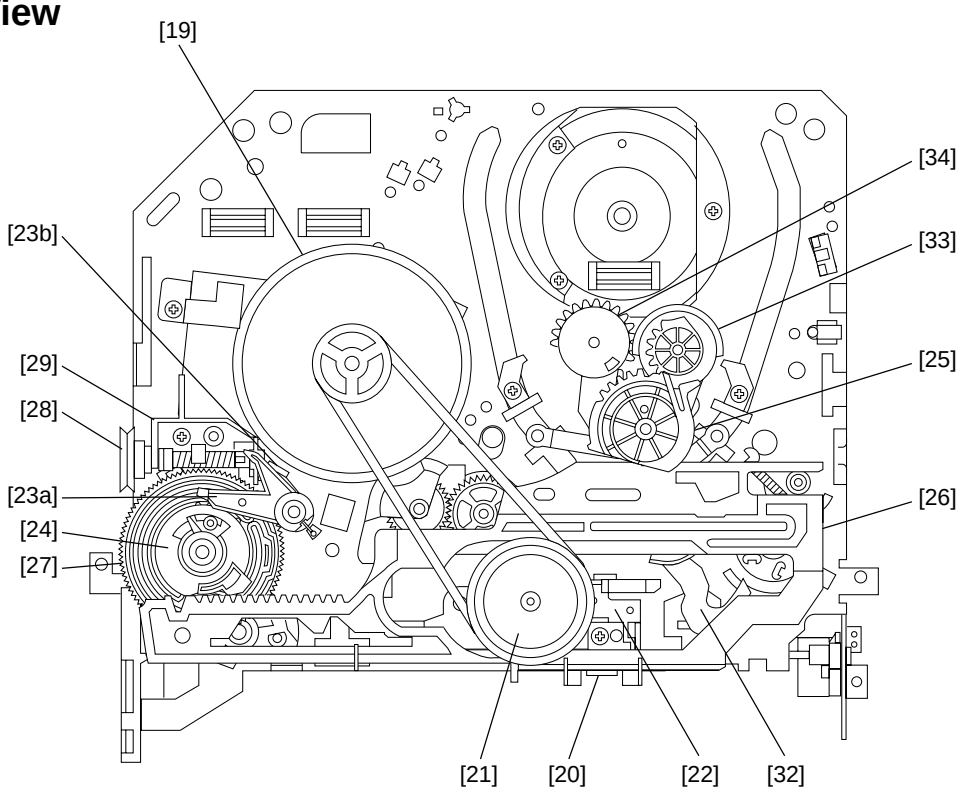


Fig. DM2

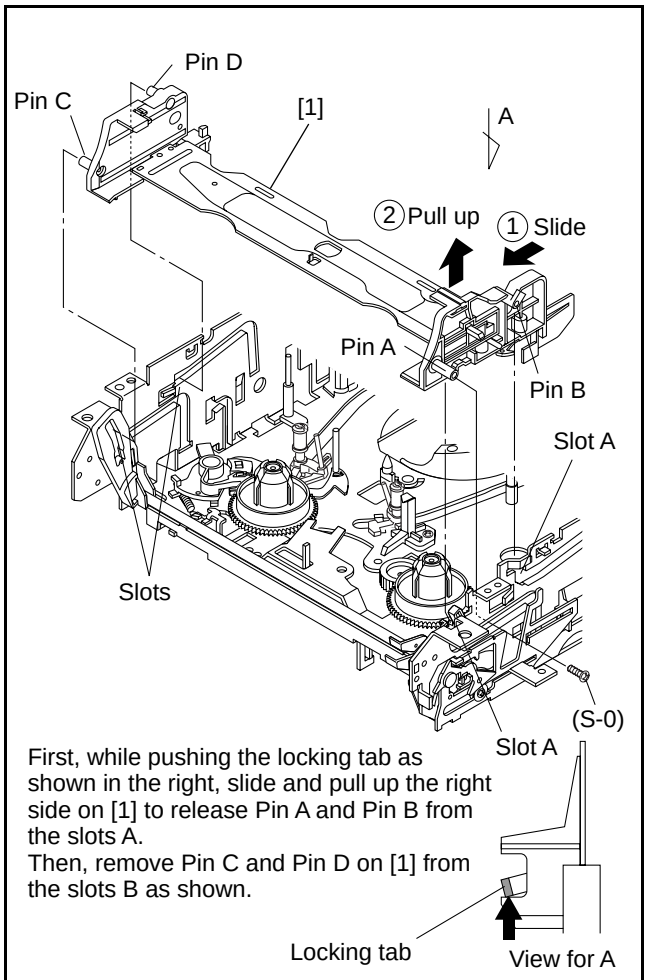

Pin D
Pin C
[1]
A
2 Pull up
1 Slide
Pin A
Pin B
Slot A
Slots
(S-0)
Slot A
First, while pushing the locking tab as shown in the right, slide and pull up the right side on [1] to release Pin A and Pin B from the slots A.
Then, remove Pin C and Pin D on [1] from the slots B as shown.
Locking tab
View for A

Fig. DM3

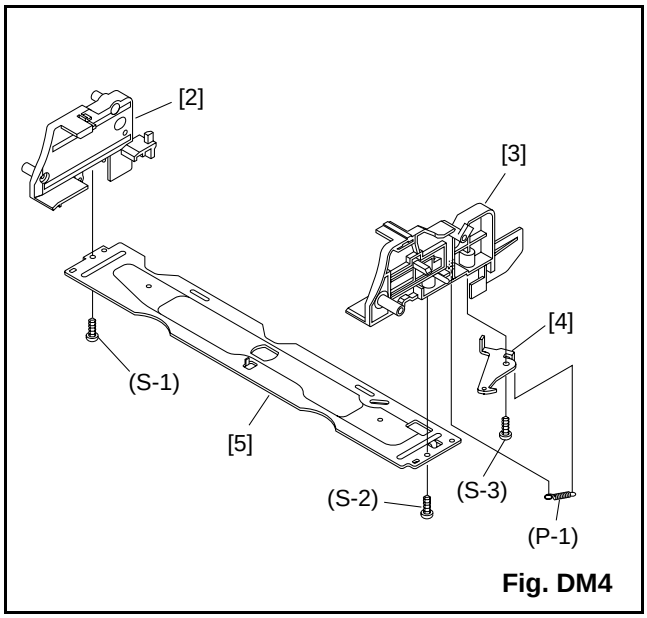


Fig. DM4

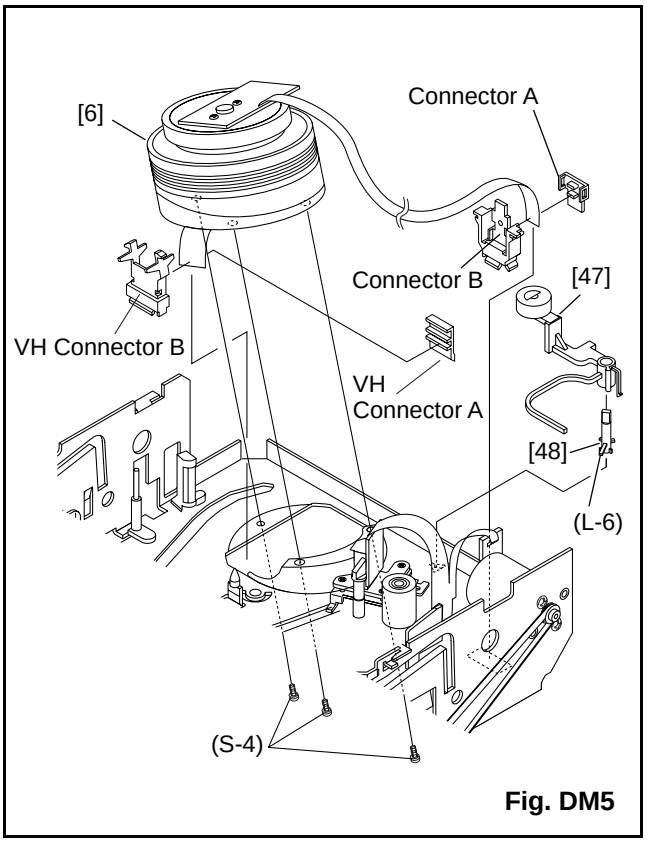


Fig. DM5

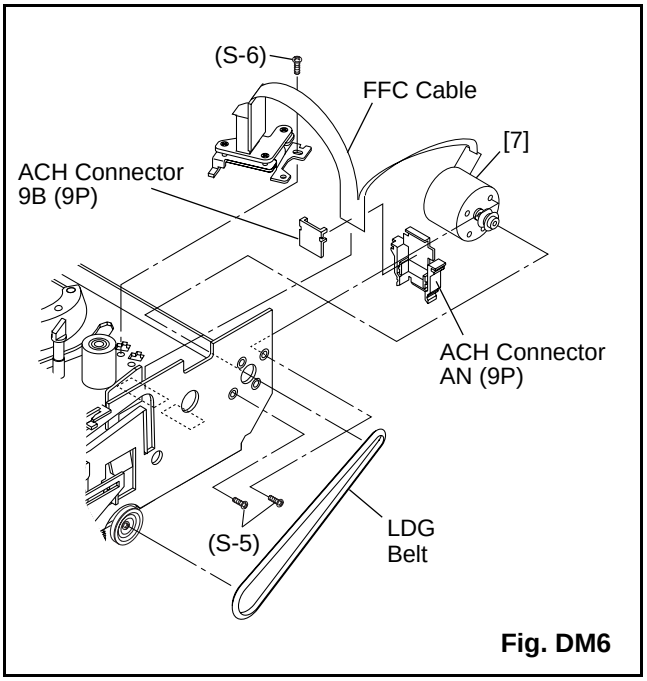
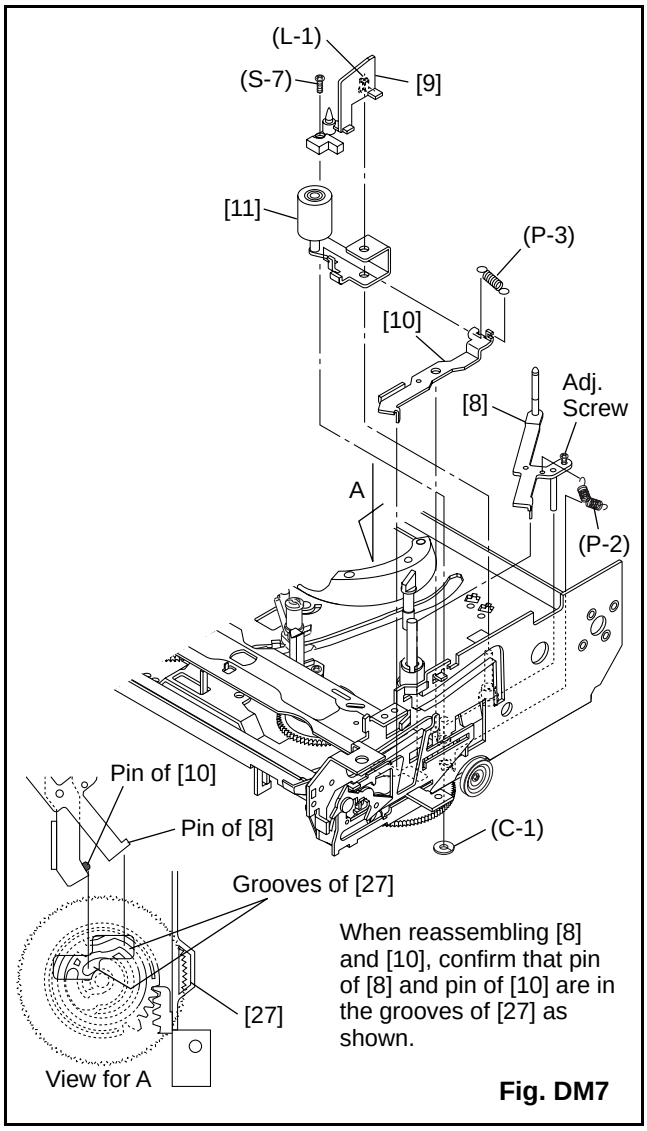


Fig. DM6



When reassembling [8] and [10], confirm that pin of [8] and pin of [10] are in the grooves of [27] as shown.

Fig. DM7

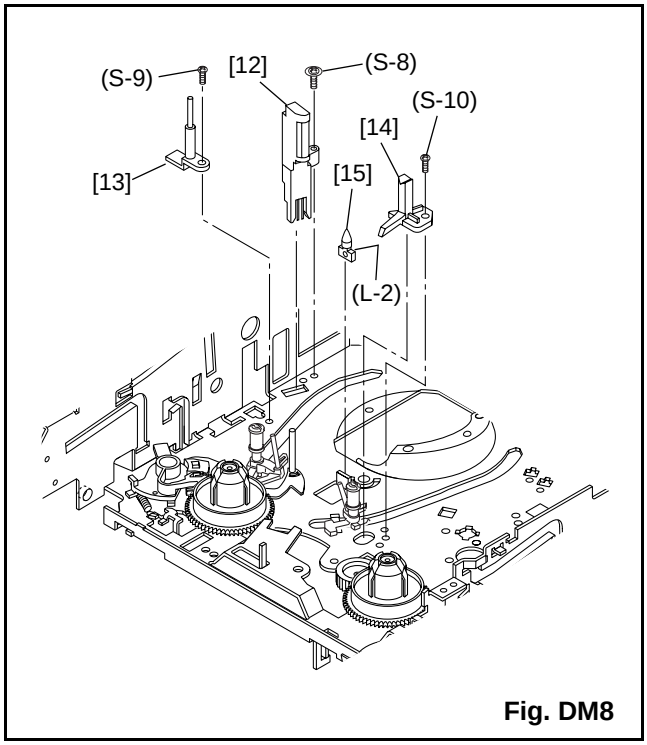
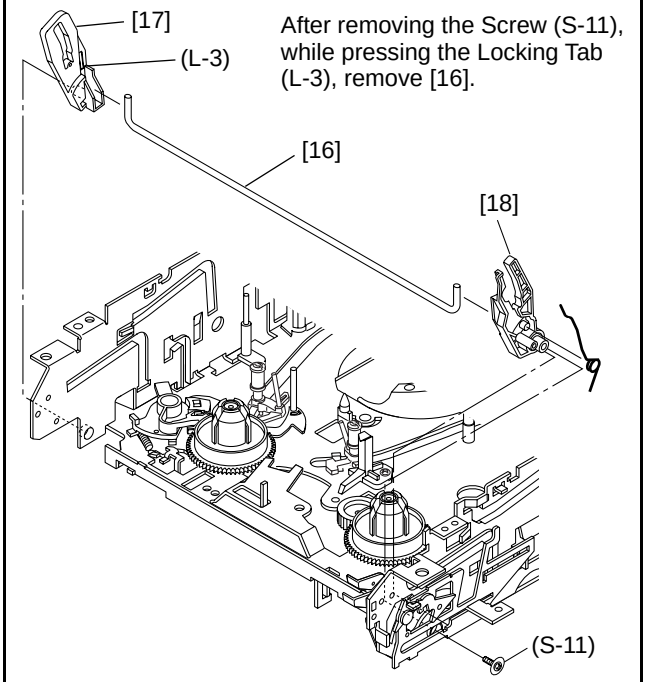


Fig. DM8



After removing the Screw (S-11), while pressing the Locking Tab (L-3), remove [16].

Fig. DM9

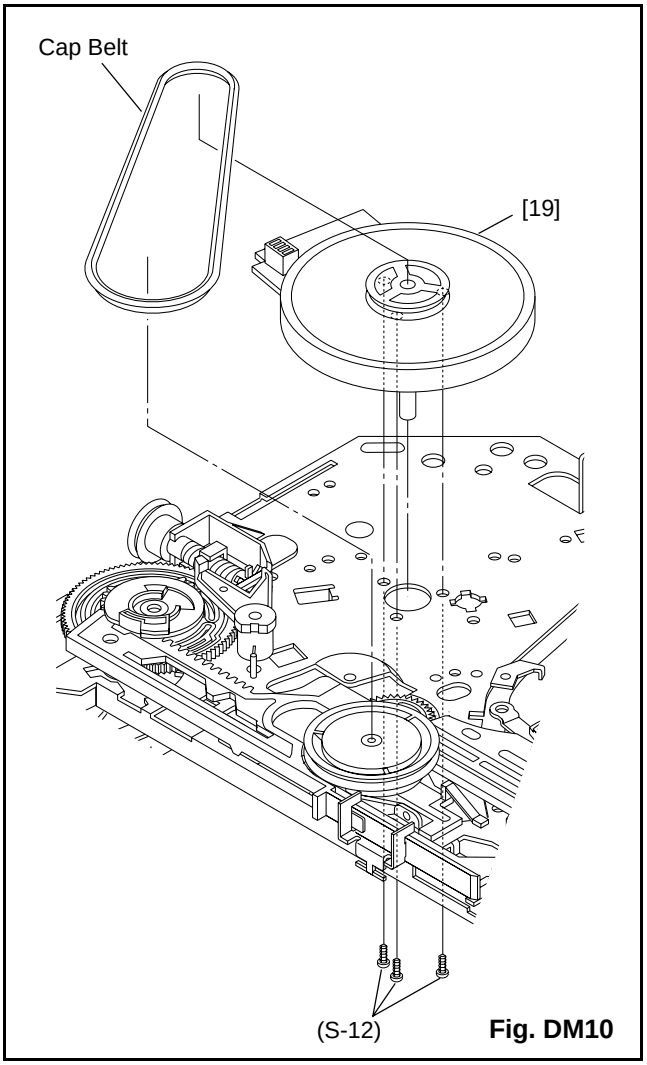


Fig. DM10

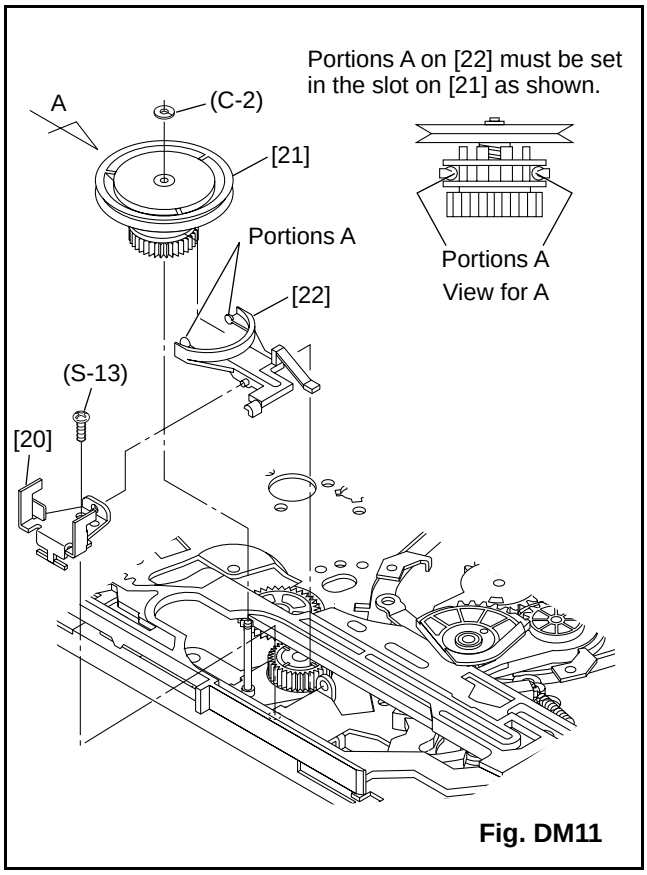
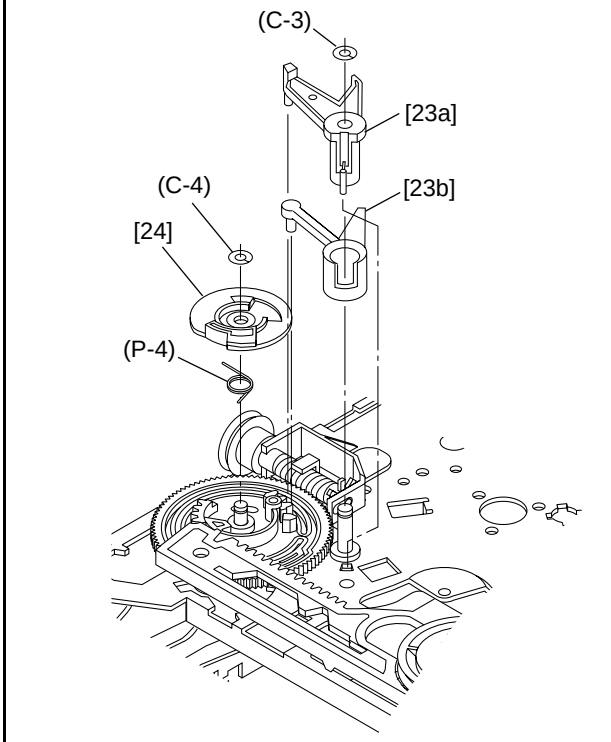
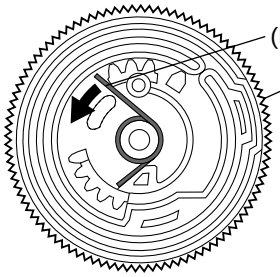
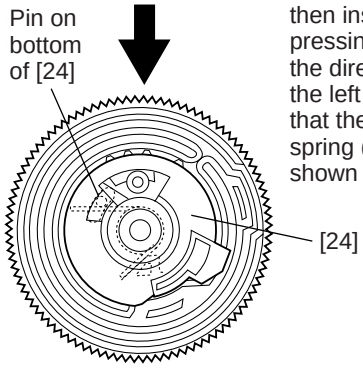


Fig. DM11

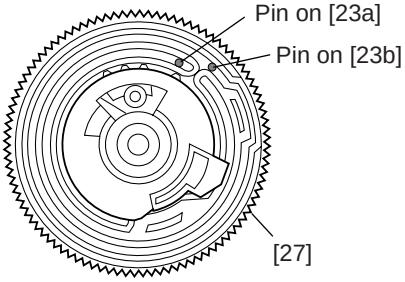




When installing [24], install the spring (P-4) to [27] as shown in the left figure, and then install [24] while pressing the spring (P-4) to the direction of the arrow in the left figure and confriming that the position of the spring (P-4) is placed as shown in the left figure.

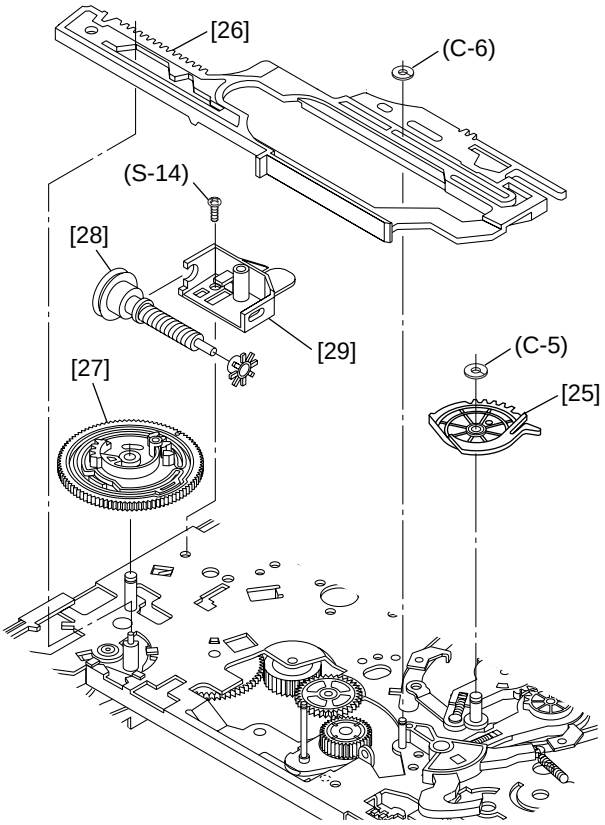


Top View

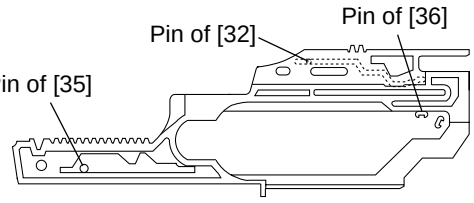


Position of pins on [23a] and [23b]

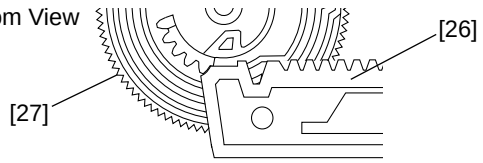
Fig. DM12



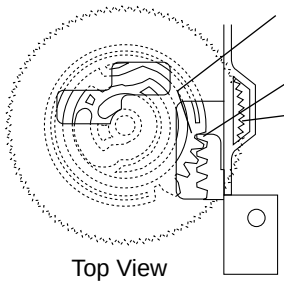
Position of Mode Lever when installed



Bottom View



Align [26] and [27] as shown.



When reassembling [27], meet the first groove on [27] to the first tooth on [45] as shown.

Fig. DM13

Refer to the Alignment Section, Page 2-4-9.

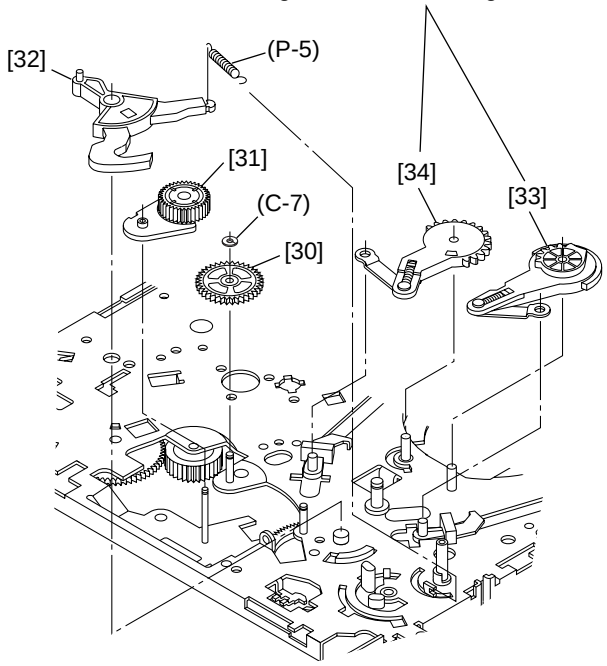


Fig. DM14

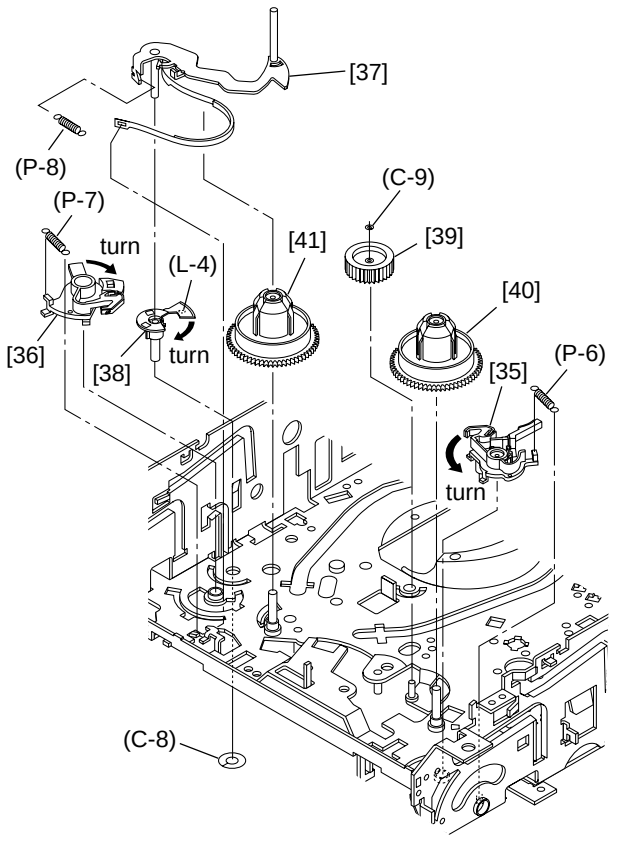


Fig. DM15

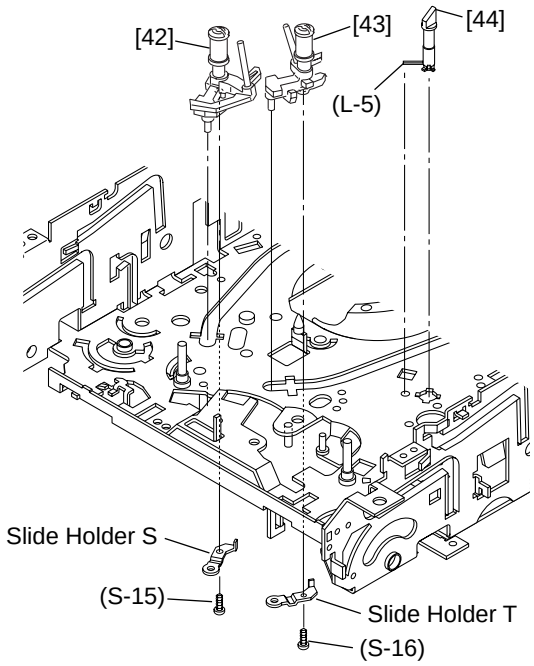


Fig. DM16

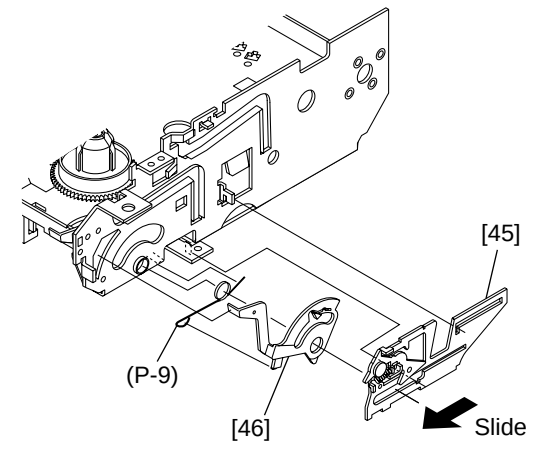


Fig. DM17

ALIGNMENT PROCEDURES OF MECHANISM

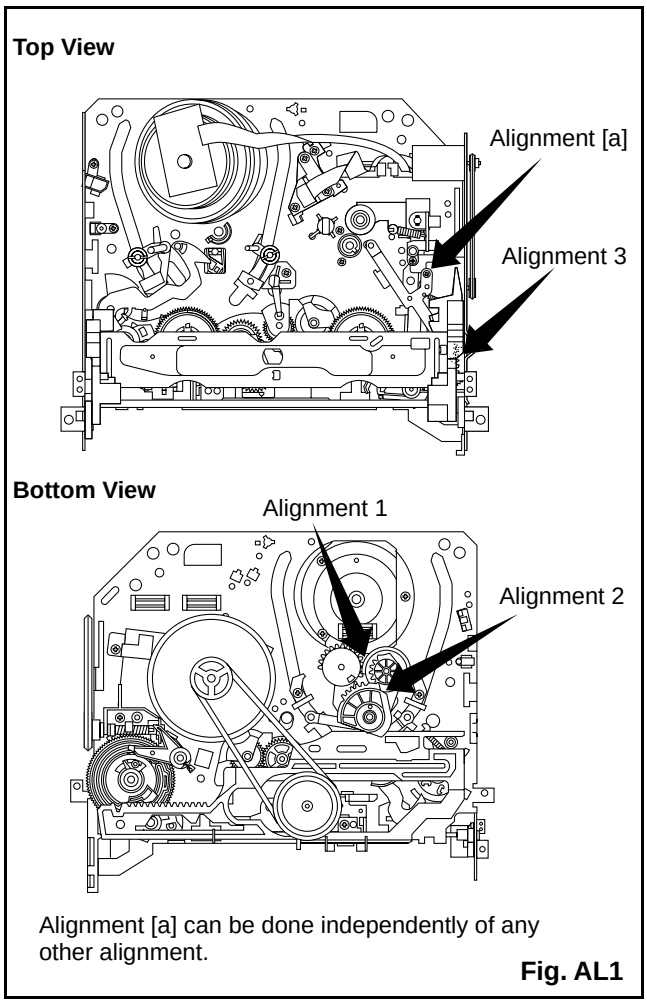
The following procedures describe how to align the individual gears and levers that make up the tape loading/unloading mechanism. Since information about the state of the mechanism is provided to the System Control Circuit only through the Mode Switch, it is essential that the correct relationship between individual gears and levers be maintained.

All alignments are to be performed with the mechanism in Eject mode, in the sequence given. Each procedure assumes that all previous procedures have been completed.

IMPORTANT:

If any one of these alignments is not performed properly, even if off by only one tooth, the unit will unload or stop and it may result in damage to the mechanical or electrical parts.

Alignment points in Eject Position



Alignment [a] can be done independently of any other alignment.

Fig. AL1

Alignment 1

Loading Arm, S and T Assembly

Install Loading Arm S and T Assembly so that their triangle marks point to each other as shown in Fig. AL2.

Alignment 2

Mode Gear

Keeping the two triangles pointing at each other, install the Loading Arm T Assembly so that the last tooth of the gear meets the most inside teeth of the Mode Gear. See Fig. AL2.

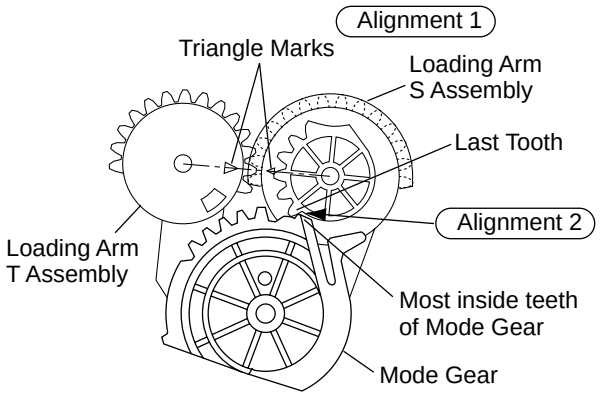


Fig. AL2

Alignment [a]

Tape Guide Assembly

Measurement of the screw must be as specified in Fig. AL3.

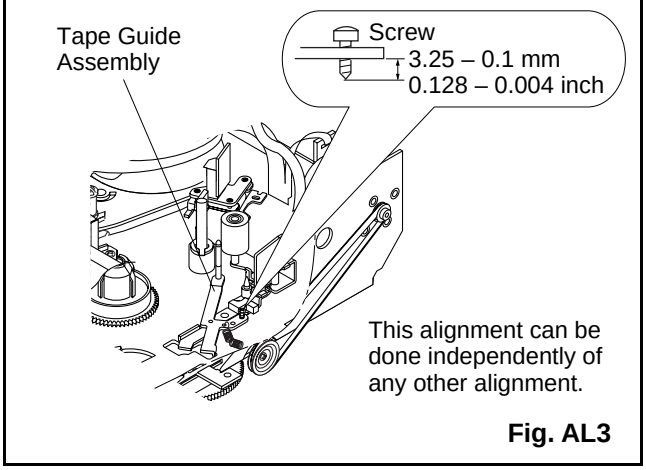


Fig. AL3

Alignment 3

Cam Gear (A), Rack Assembly

Install the Rack Assembly so that the first tooth on the gear of the Rack Assembly meets the first groove on the Cam Gear (A) as shown in Fig. AL4.

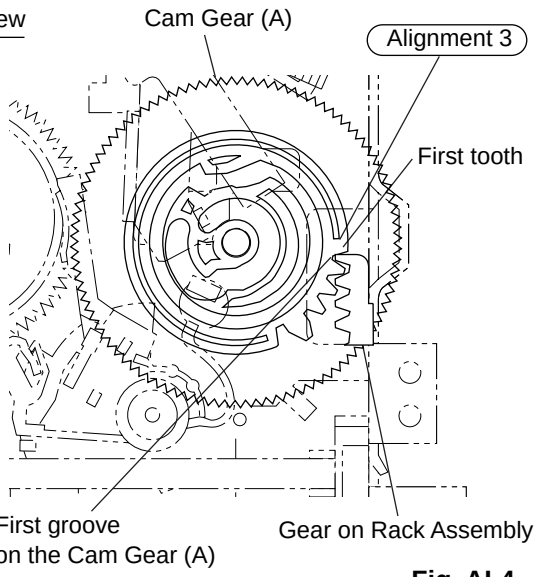


Fig. AL4

EXPLODED VIEWS AND PARTS LIST SECTION

27" COLOR TV/DVD/VCR

6727DB

Sec. 3: Exploded views and Parts List Section

- **Exploded views**
- **Parts List**

TABLE OF CONTENTS

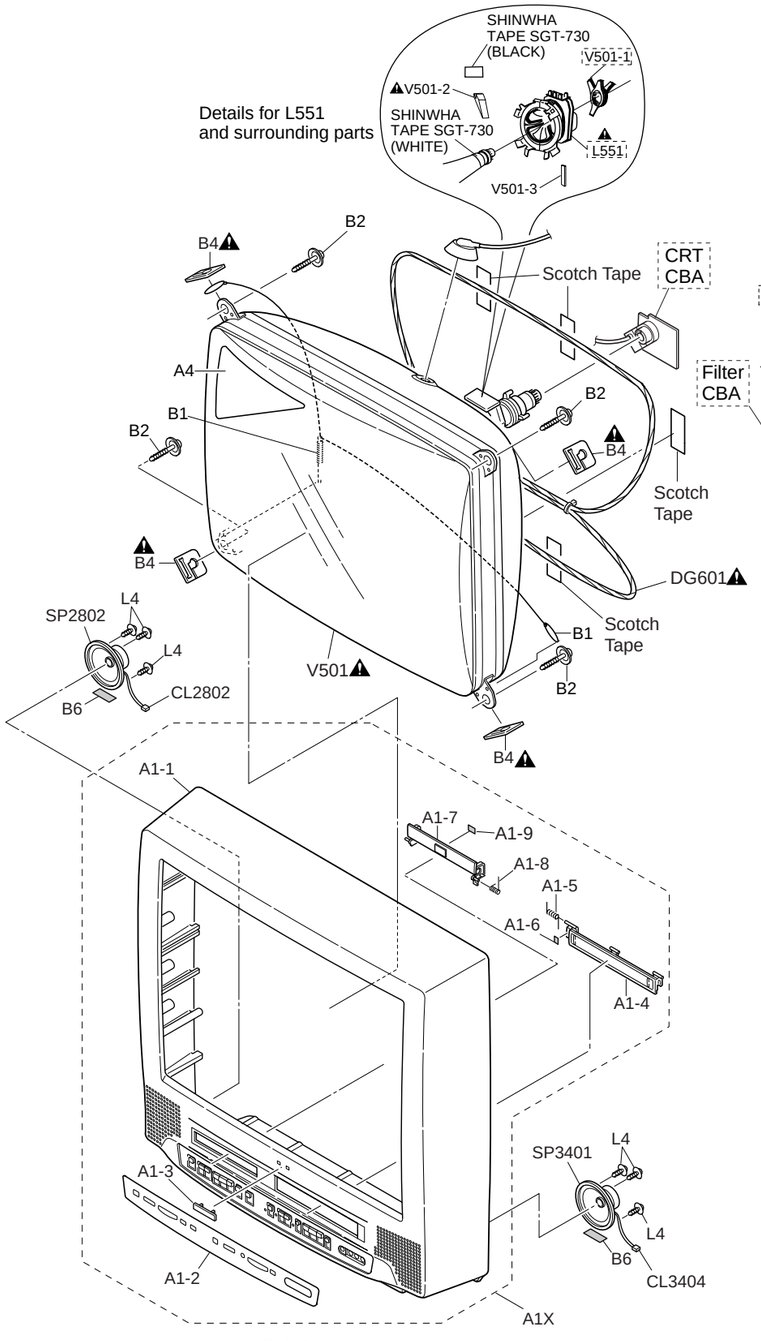
Cabinet Exploded View 3-1-1
Packing Exploded View 3-1-3
Deck Mechanism Exploded View 3-1-4
Mechanical Parts List 3-2-1
Electrical Parts List 3-3-1
Deckl Parts List 3-4-1

EXPLODED VIEWS

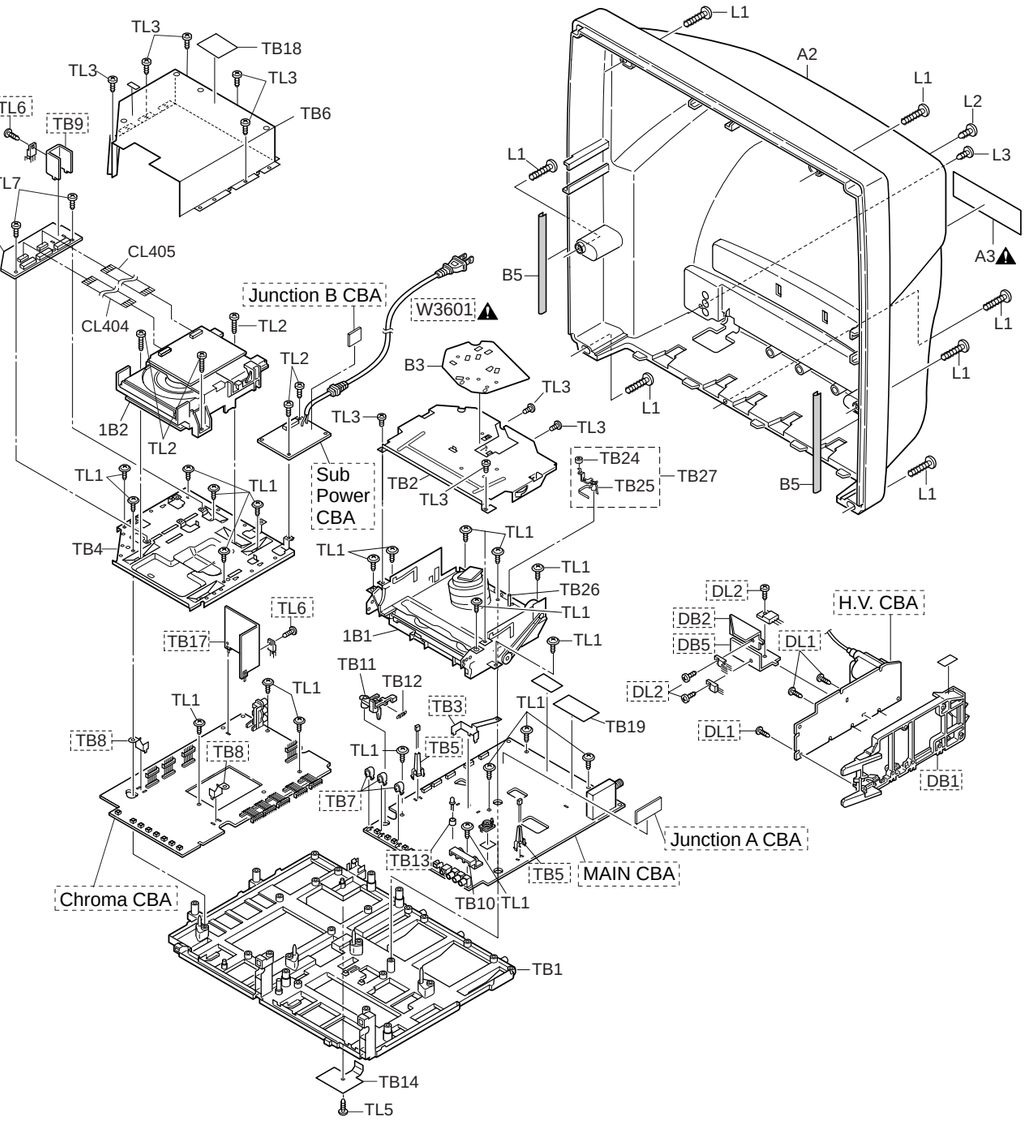
Cabinet

[ ] See Electrical Parts List.

Some Ref. Numbers are not in sequence.



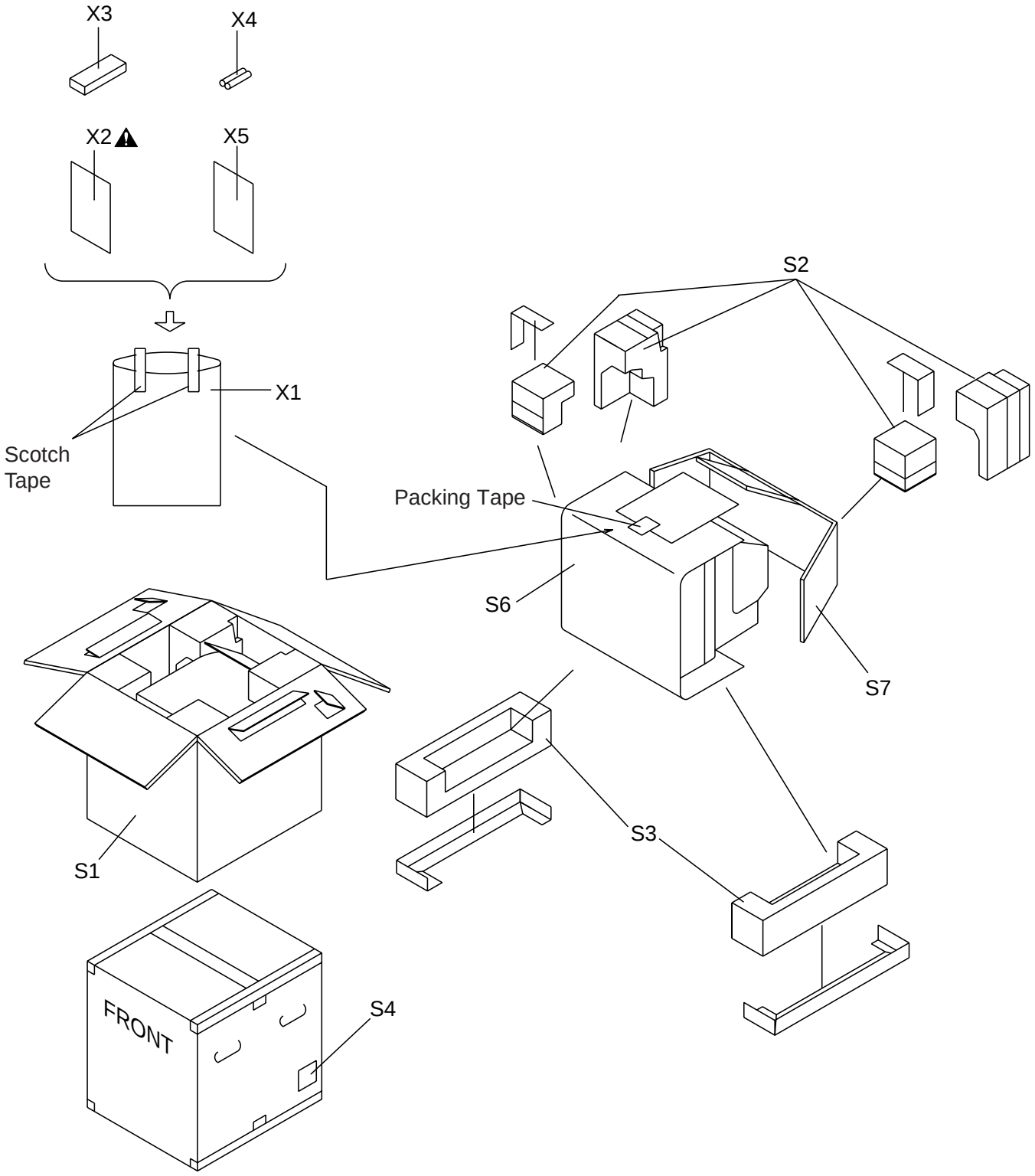
3-1-1



3-1-2

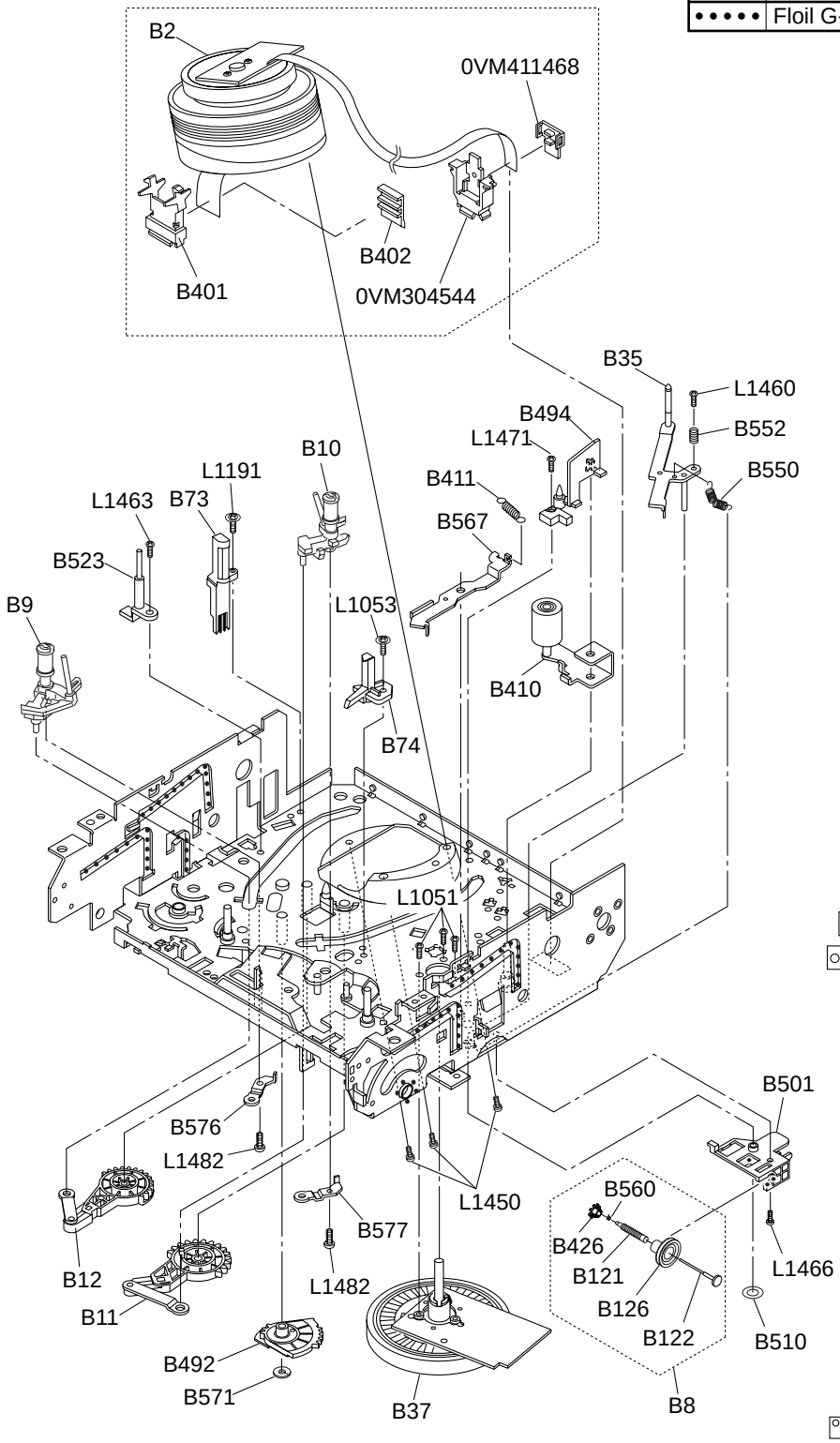
Packing

Some Ref. Numbers are not in sequence.



Deck Mechanism View 1

Mark	Description		Part No.
• • • • •	Floil G-374G	(Blue grease)	0VZZ00109



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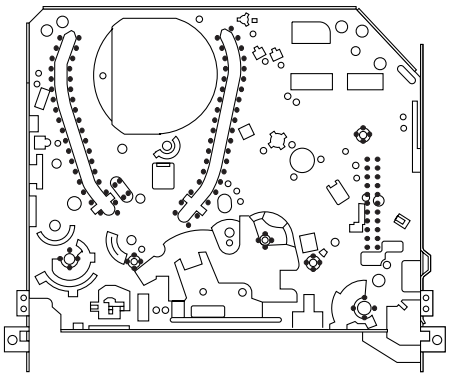
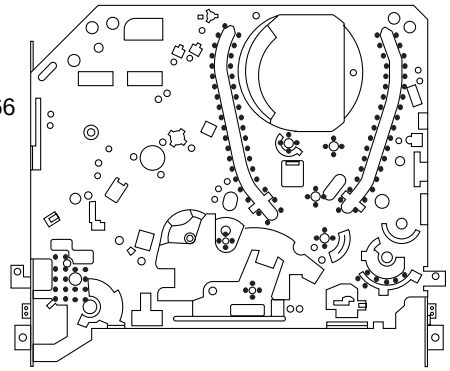


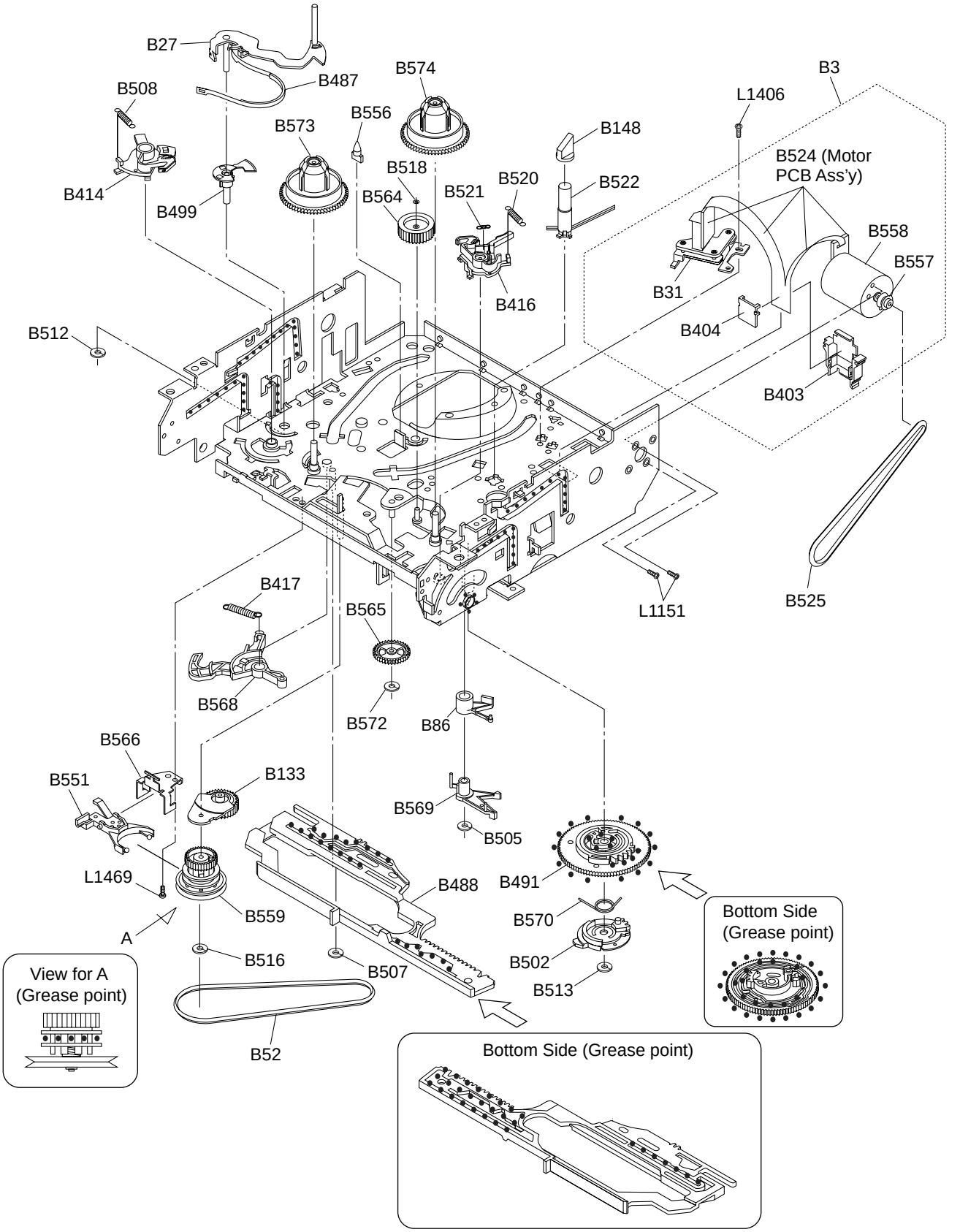
Chassis Assembly
Top View (Grease Point)



Chassis Assembly
Bottom View (Grease Point)

Deck Mechanism View 2

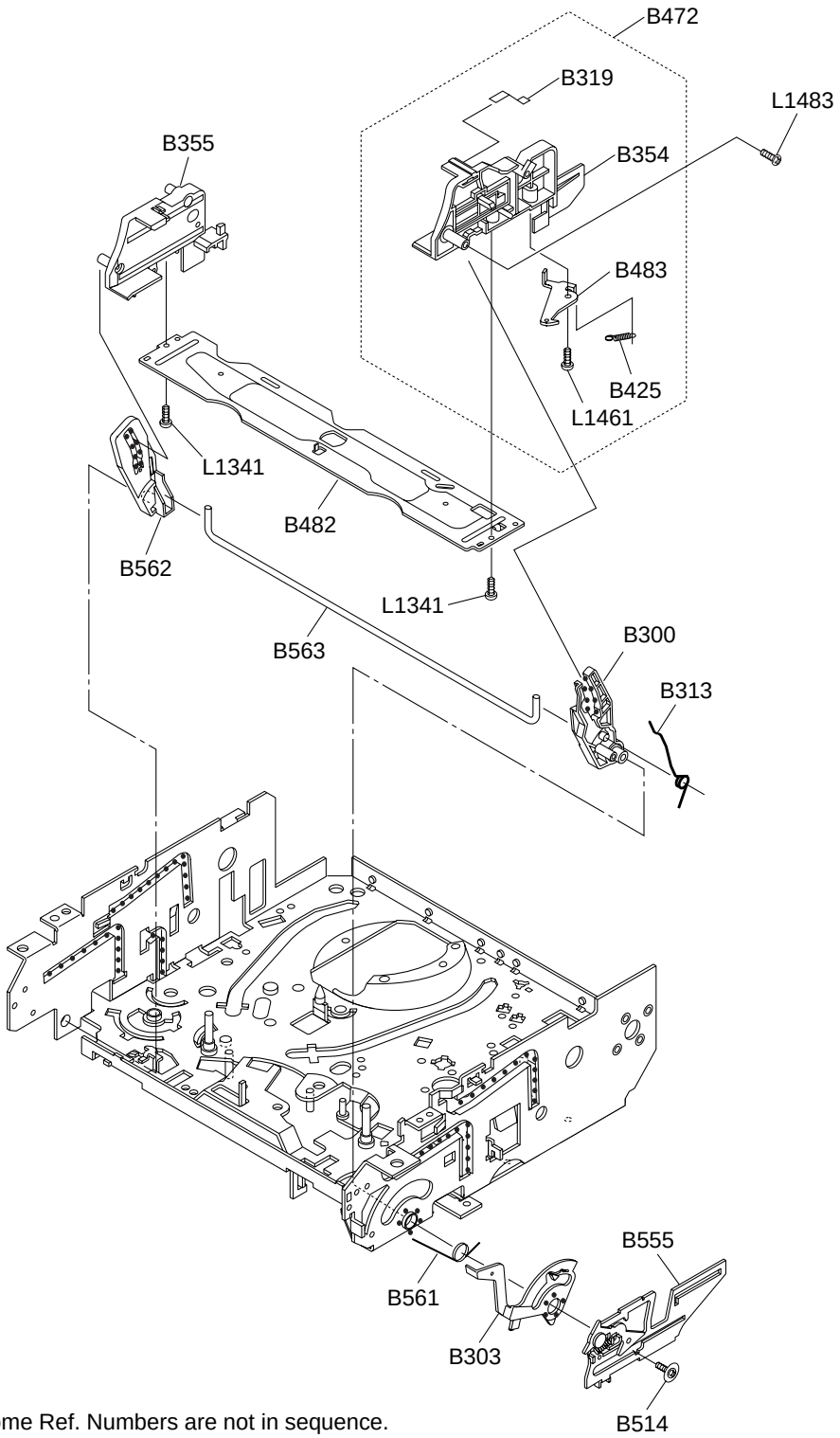
Mark	Description		Part No.
• • • • •	Floil G-374G	(Blue grease)	0VZZ00109



Some Ref. Numbers are not in sequence.

Deck Mechanism View 3

Mark	Description		Part No.
• • • • •	Floil G-374G	(Blue grease)	0VZZ00109



Some Ref. Numbers are not in sequence.

MECHANICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

Ref. No.	Description	Part No.
A1X	FRONT CABINET ASSEMBLY TD370UA	0EM000578
A1-1	FRONT CABINET TD370UA	0EM000570
A1-2	CONTROL PLATE TD370UA	0EM201532
A1-3	BRAND BADGE L L1520UASYLVANIA	0EM406577
A1-4	CASSETTE DOOR TD370UA	0EM406713A
A1-5	DOOR SPRING B5000UA	0VM403773
A1-6	CLOTH(4X7XT0.7) T5000UA	0EM404974
A1-7	TRAY PANEL TD350UA	0EM301511
A1-8	TRAY SPRING TD250UA	0EM406504
A1-9	CLOTH(B) L5201U0:15X10X1.0T	0EM400076
A2	REAR CABINET TD370UA	0EM000571
A3⚠	RATING LABEL TD370UA	0EM406704
A4	POP LABEL TD350UA	0EM406702
B1	TENSION SPRING B0080B0:EM40808	26WH006
B2	SCREW L1500UA	0EM406142
B3	SHIELD PLATE(Z9 9V) T4100UA	0EM405692A
B4⚠	DEGAUSS HOLDER L1200UA	0EM405869
B5	CLOTH 190X15XT0.5	TS7623
B6	CLOTH(10X30XT0.5) B5900UA	0EM404486
1B1	DECK ASSEMBLY CZD006/VM1266	N1266FT
1B2	DVD LODER ASSEMBLY	N79T0EUN
CL404	FFC WIRE FFC24P 100MM	WX1TD250-003
CL405	FFC WIRE FFC15P 100MM	WX1TD250-002
CL2802	WIRE ASSEMBLY SPEAKER WIRE(180MM)	WX1L9800-001
CL3404	WIRE ASSEMBLY SPEAKER WIRE(180MM)	WX1L9800-001
DG601⚠	DEGAUSSING COIL F-029	LLBH00ZTM029
L1	SCREW, P-TIGHT 4X18 BIND HEAD +	GBMP4180
L2	SCREW TAPPING M4X14	DBU14140
L3	SCREW, P-TIGHT 3X10 BIND HEAD+	GBKP3100
L4	SCREW, ASSEMBLED 12:M3X12	0EM406746
SP2802	SPEAKER S08F02B	DSD0808XQ010
SP3401	SPEAKER S08F02B	DSD0808XQ010
TB1	TRAY CHASSIS TD350UA	0EM000543
TB2	9V TOP SHIELD(2) T4200UA	0EM101093
TB4	BOTTOM PLATE TD350UA	0EM101124
TB6	SHIELD BOX TD350UA	0EM201471
TB10	RCA HOLDER TD350UA	0EM406581
TB11	REC ARM H7700UD	0VM202907
TB12	REC ARM SPRING MK6	0VM407708C
TB14	TRAY COVER TD250UA	0EM406459
TB18	LABEL, LASER CAUTION (C) TD100UA	0EM405997
TB19⚠	27V CHASSIS NO.LABEL TJ TD370UA	0EM406725
TB24	CLEANER ROLLER MK9	0VM410032C
TB25	CLEANER LEVER MK10	0VM304413
TB26	CL POST MK10	0VM411114
TB27	CLEANER ASSEMBLY MK10	0VSA11161
TL1	SCREW, P-TIGHT 3X12 WASHER HEAD+	GCMP3120
TL2	SCREW, B-TIGHT 3X10 BIND HEAD+	GBMB3100
TL3	SCREW, S-TIGHT 3X4 BIND HEAD+	GBMS3040
TL5	P-TIGHT SCREW 3X8 BIND +	GBMP3080
TL7	B-TITE SCREW 3X8 BIND + CHROME	GBMB3080
L551⚠	DEFLECTION YOKE CDY-29029F	LLBY00ZQS012
V501⚠	CRT A68KTB359X(B)	TCRT190QS024
⚠	CRT A68KTB359X(PB)	TCRT190QS025
V501-1	PCM JH88DTA	XM04000BV010
V501-2	WEDGE FT-00110W or	XV10000T4001
	WEDGE DB25SR	XV10000D9001
V501-3	RUBBER MAGNET 20X10X1.2	XM05000BV001
	PACKING	
S1	CARTON TD370UA	0EM301540
S2	STYROFOAM TOP ASSEMBLY TD370UA	0EM406721
S3	STYROFOAM BOTTOM ASSEMBLY TD370UA	0EM406722
S4	SERIAL NO. LABEL TD370UA	0EM406717
S6	SET SHEET PCEC:003502019816	0EM403887
S7	HOLD PAD TD370UA	0EM406716
	ACCESSORIES	
X1	POLYETHYLENE BAG B5310UL	Z223380
X2⚠	OWNER'S MANUAL TD370UA	0EMN01859
X3	REMOCON UNIT 189/ERC001/N0288UD	N0288UD
X4	DRY BATTERY R6P UM3 or	XB0M451GH001
	DRY BATTERY R6P(AR)2PX or	XB0M451HU002
	DRY BATTERY R6P(AR)2P X ICI or	XB0M451HU003
	DRY BATTERY(SUNRISE) R6SSE/2S or	XB0M451MS002
	DRY BATTERY R6P/2S	XB0M451T0001
X5	RETURN STOP SHEET H1660UD	0VM408870A

ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

1. Parts that not assigned part numbers (---------) are not available.
2. Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25%	D.....±0.5%	F.....±1%
G.....±2%	J.....±5%	K.....±10%
M.....±20%	N.....±30%	Z.....+80/-20%

DVD MAIN CBA

Ref.No.	Description	Part No.
	DVD MAIN CBA	N79T0EUP

Main (MMA) CBA

Ref.No.	Description	Part No.
	Main CBA Consists of the following	0ESA04459
	CAPACITORS	
C1001	CERAMIC CAP.(AX) SL J 56PF/50V	CCA1JJTSL560
C1004	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1005	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1006	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1007	CERAMIC CAP.(AX) B K 0.01µF/50V	CA1J103TU011
C1008	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1030	CERAMIC CAP.(AX) B K 220PF/50V	CCA1JKT0B221
C1031	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1033	ELECTROLYTIC CAP. 0.47µF/50V M or	CE1JMASDLR47
	ELECTROLYTIC CAP. 0.47µF/50V M	CE1JMASTLR47
C1034	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1035	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1036	CERAMIC CAP.(AX) B K 330PF/50V	CCA1JKT0B331
C1037	FILM CAP.(P) 0.01µF/50V J or	CMA1JJS00103
	FILM CAP.(P) 0.01µF/50V J or	CA1J103MS029
	FILM CAP.(P) 0.01µF/50V J TV	CMB1JJS00103
C1038	FILM CAP.(P) 0.015µF/50V J or	CMA1JJS00153
	FILM CAP.(P) 0.015µF/50V J or	CA1J153MS029
	FILM CAP.(P) 0.015µF/50V J TV	CMB1JJS00153
C1039	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1040	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1051	CERAMIC CAP.(AX) F Z 0.022µF/50V	CCA1EZTFZ223
C1052	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1053	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1054	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1055	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASDL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASTL101
C1056	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C1203	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1204	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1205	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1206	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1207	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1208	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1209	CERAMIC CAP.(AX) Y N 0.022µF/6V	CCA0KNT0Y223
C1210	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1211	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1212	CERAMIC CAP.(AX) CH J 20PF/50V	CCA1JJTCH200
C1213	CERAMIC CAP.(AX) CH J 20PF/50V	CCA1JJTCH200
C1214	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1216	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1217	CERAMIC CAP.(AX) CH J 10PF/50V	CCA1JJTCH100
C1218	CERAMIC CAP.(AX) CH J 15PF/50V	CCA1JJTCH150
C1219	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1220	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1221	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1222	CERAMIC CAP.(AX) X M 2200PF/16V	CCA1CMT0X222
C1223	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1224	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1225	CERAMIC CAP.(AX) CH J 560PF/50V	CA1J561TU008
C1231	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C1232	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C1233	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1234	CERAMIC CAP.(AX) B K 100PF/50V	CCA1JKT0B101
C1235	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1236	CERAMIC CAP.(AX) F Z 0.047µF/16V	CCA1CZTFZ473
C1238	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1239	ELECTROLYTIC CAP. 22µF/50V M H7	CE1JMASSL220
C1240	CERAMIC CAP.(AX) B K 560PF/50V	CCA1JKT0B561
C1241	CERAMIC CAP.(AX) Y N 0.022µF/6V	CCA0KNT0Y223
C1242	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1243	ELECTROLYTIC CAP. 22µF/16V M LL or	CE1CMASLL220

Ref.No.	Description	Part No.
	ELECTROLYTIC CAP. 22µF/16V M LL	CE1CMASLH220
C1244	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1245	ELECTROLYTIC CAP. 47µF/10V M H7	CE1AMASSL470
C1246	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1247	ELECTROLYTIC CAP. 22µF/16V M H7	CE1CMASSL220
C1249	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1252	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1253	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J TV	CMB1JJS00104
C1254	CERAMIC CAP.(AX) B K 100PF/50V	CCA1JKT0B101
C1255	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1281	ELECTROLYTIC CAP. 47µF/16V M H7	CE1CMASSL470
C1284	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C1286	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1287	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1288	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C1289	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1290	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C1291	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASDL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASTL101
C1294	ELECTROLYTIC CAP. 10µF/50V M H7	CE1JMASSL100
C1295	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1394	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1403	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1410	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1411	ELECTROLYTIC CAP. 220µF/6.3V M H7	CE0KMASSL221
C1412	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1413	CERAMIC CAP.(AX) B K 390PF/50V	CCA1JKT0B391
C1414	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1416	CERAMIC CAP.(AX) CH J 180PF/50V	CA1J181TU008
C1417	CERAMIC CAP.(AX) CH J 22PF/50V	CA1J220TU008
C1418	PCB JUMPER D0.6-P5.0	JW5.0T
C1419	ELECTROLYTIC CAP. 0.1µF/50V M H7 or	CE1JMASSL0R1
	ELECTROLYTIC CAP. 0.1µF/50V M H7	CE1JMASSLR10
C1420	ELECTROLYTIC CAP. 22µF/16V M H7	CE1CMASSL220
C1422	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMASSL4R7
C1423	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMASSL4R7
C1424	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1425	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1426	ELECTROLYTIC CAP. 22µF/16V M H7	CE1CMASSL220
C1427	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1428	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1429	ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMASSL470
C1430	CERAMIC CAP.(AX) Y N 0.022µF/6V	CCA0KNT0Y223
C1431	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1432	CHIP CERAMIC CAP. F Z 0.01µF/50V	CHD1JZB0F103
C1434	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1435	ELECTROLYTIC CAP. 2.2µF/50V M H7	CE1JMASSL2R2
C1436	CERAMIC CAP.(AX) XM 3900PF/16V	CCA1CMT0X392
C1437	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1438	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010

Ref.No.	Description	Part No.
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1439	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1440	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1441	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1442	CERAMIC CAP.(AX) B K 0.047µF/50V	CA1J473TU011
C1443	CERAMIC CAP.(AX) B K 0.047µF/50V	CA1J473TU011
C1444	ELECTROLYTIC CAP. 22µF/16V M H7	CE1CMASSL220
C1445	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1446	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1447	CERAMIC CAP.(AX) F Z 0.047µF/16V	CCA1CZTFZ473
C1448	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1450	PCB JUMPER D0.6-P5.0	JW5.0T
C1451	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C1452	CERAMIC CAP. F Z 0.022µF/50V	CCD1JZS0F223
C1628	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1629	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1630	ELECTROLYTIC CAP. 100µF/16V M or	CE1CMASDL101
	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASTL101
C1631	ELECTROLYTIC CAP. 220µF/6.3V M or	CE0KMASDL221
	ELECTROLYTIC CAP. 220µF/6.3V M	CE0KMASTL221
C1634	ELECTROLYTIC CAP. 100µF/16V M or	CE1CMASDL101
	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASTL101
C1635	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1636	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C1750	CERAMIC CAP.(AX) B K 2200PF/50V	CA1J222TU011
C1751	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1752	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1753	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1754	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1755	ELECTROLYTIC CAP. 22µF/50V M or	CE1JMASDL220
	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASTL220
C1756	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1757	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1758	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1759	ELECTROLYTIC CAP. 22µF/16V M H7	CE1CMASSL220
C1760	CERAMIC CAP.(AX) X K 4700PF/16V	CCA1CKT0X472
C1761	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1762	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1763	CERAMIC CAP.(AX) CH J 330PF/50V	CA1J331TU008
C1764	ELECTROLYTIC CAP. 220µF/6.3V M or	CE0KMASDL221
	ELECTROLYTIC CAP. 220µF/6.3V M	CE0KMASTL221
C1765	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104

Ref.No.	Description	Part No.
C1766	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1767	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1768	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1769	ELECTROLYTIC CAP. 22µF/50V M or	CE1JMASDL220
	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASTL220
C1770	CERAMIC CAP.(AX) X K 4700PF/16V	CCA1CKT0X472
C1771	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1772	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1773	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1774	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1775	ELECTROLYTIC CAP. 100µF/16V M or	CE1CMASDL101
	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASTL101
C1776	ELECTROLYTIC CAP. 0.1µF/50V M or	CE1JMASDL0R1
	ELECTROLYTIC CAP. 0.1µF/50V M	CE1JMASTL0R1
C1777	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1778	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1779	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1780	ELECTROLYTIC CAP. 2.2µF/50V M or	CE1JMASDL2R2
	ELECTROLYTIC CAP. 2.2µF/50V M	CE1JMASTL2R2
C1781	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1782	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C1783	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1784	ELECTROLYTIC CAP. 4.7µF/35V M or	CE1GMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/35V M	CE1GMASTL4R7
C1785	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1786	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1787	ELECTROLYTIC CAP. 22µF/50V M or	CE1JMASDL220
	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASTL220
C1788	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1789	ELECTROLYTIC CAP. 22µF/50V M or	CE1JMASDL220
	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASTL220
C1790	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1791	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1792	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1793	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1795	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7

Ref.No.	Description	Part No.
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C1796	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1797	ELECTROLYTIC CAP. 220µF/10V M or	CE1AMASDL221
	ELECTROLYTIC CAP. 220µF/10V M	CE1AMASTL221
C1798	ELECTROLYTIC CAP. 330µF/6.3V M or	CE0KMASDL331
	ELECTROLYTIC CAP. 330µF/6.3V M	CE0KMASTL331
C1799	CERAMIC CAP.(AX) B K 2200PF/50V	CA1J222TU011
C1851	ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMASSL470
C1852	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1854	ELECTROLYTIC CAP. 22µF/16V M H7	CE1CMASSL220
C1856	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C1857	ELECTROLYTIC CAP. 33µF/6.3V M H7	CE0KMASSL330
C1858	ELECTROLYTIC CAP. 4.7µF/50V M H7	CE1JMASSL4R7
C1859	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C1860	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1861	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1862	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C1863	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1864	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C1865	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C1866	CERAMIC CAP.(AX) X M 2200PF/16V	CCA1CMT0X222
C1872	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C1873	ELECTROLYTIC CAP. 100µF/16V M or	CE1CMASDL101
	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASTL101
C1874	CERAMIC CAP. B K 470PF/100V or	CCD2AKS0B471
	CERAMIC CAP. B K 470PF/500V	CCD2JKS0B471
C1875	FILM CAP.(P) 0.018µF/50V J or	CA1J183MS029
	FILM CAP.(P) 0.018µF/100V J or	CMA2AJS00183
	FILM CAP.(P) 0.018µF/100V J TV	CMB2AJS00183
C2205	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C2208	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C2211	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C2215	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C2242	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C2245	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C2353	ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMASSL470
C2801	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C2802	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C2803	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J TV	CMB1JJS00104
C2804	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J TV	CMB1JJS00104
C2805	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471

Ref.No.	Description	Part No.
C2806	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C2808	ELECTROLYTIC CAP. 0.1µF/50V M or	CE1JMASDL0R1
	ELECTROLYTIC CAP. 0.1µF/50V M	CE1JMASTL0R1
C2810	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C2811	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C2813	ELECTROLYTIC CAP. 10µF/16V M or	CE1CMASDL100
	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASTL100
C2814	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C2817	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C2818	ELECTROLYTIC CAP. 0.1µF/50V M or	CE1JMASDL0R1
	ELECTROLYTIC CAP. 0.1µF/50V M	CE1JMASTL0R1
C2820	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
	CONNECTORS	
CN1201	CONNECTOR, 8P TMC-J08P-A2 or	J3TMA08TG004
	CONNECTOR, 8P TMC-J08P-A1	J3TMA08TG002
CN1202	FE CONNECTOR, TOP 5P 05FE-BT-VK-N	JCFEJ05JG001
CN1301	CONNECTOR BASE, 5P TUC-P05P-B1	J3TUA05TG001
CN1302	CONNECTOR BASE, 7P TUC-P07P-B1	J3TUA07TG001
CN1303	CONNECTOR BASE, 5P TUC-P05P-B1	J3TUA05TG001
CN1352	TWG CONNECTOR 13P TWG-P13X-A1	JCTWA13TG001
CN1353	TWG CONNECTOR 13P TWG-P13X-A1	JCTWA13TG001
CN1354	TWG CONNECTOR 13P TWG-P13X-A1	JCTWA13TG001
CN1355	TWG CONNECTOR 13P TWG-P13X-A1	JCTWA13TG001
CN1356	TWG CONNECTOR 13P TWG-P13X-A1	JCTWA13TG001
CN1401	FE CONNECTOR, TOP 9P 09FE-BT-VK-N	JCFEJ09JG001
CN1402	FE CONNECTOR, TOP 9P 09FE-BT-VK-N	JCFEJ09JG001
CN1403	CABLE CONNECTOR, 2P TMC-E02X-A1	JCTMC02TG001
CN2802	STRAIGHT CONNECTOR BASE 00 8283 0212 00 000 or	J383C02UG002
	STRAIGHT PIN HEADER, 2P 173981-2	1770258
	DIODES	
D1001	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1201	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
D1203	LED LTL-4214M1 or	NPQZLTL4214M
	LED(RED)L-FORMING LT1814G-81-FL or	NP4Z0LT1814G
	LED L-53HT or	NP4Z000L53HT
	LED LAMP 333HT/F45-50K or	NPWK333HTF45
	LED LAMP 333HT/F45-50L or	NPWL333HTF45
	LED LAMP 333HT/F45-50M	NPWM333HTF45
D1204	LED SIR-563ST3F P or	QPQPS1R563ST
	LED SIR-563ST3F Q	QPQQS1R563ST
D1206	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1208	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1209	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1210	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1216	LED LAMP 333GT/F45-50	NPWZ3GTF4550
D1217	LED LTL-4214M1 or	NPQZLTL4214M
	LED(RED)L-FORMING LT1814G-81-FL or	NP4Z0LT1814G
	LED L-53HT or	NP4Z000L53HT
	LED LAMP 333HT/F45-50K or	NPWK333HTF45
	LED LAMP 333HT/F45-50L or	NPWL333HTF45
	LED LAMP 333HT/F45-50M	NPWM333HTF45
D1218	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2

Ref.No.	Description	Part No.
D1225	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1281	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1282	ZENER DIODE MTZJT-776.8B	QDTB0MTZJ6R8
D1283	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1285	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1401	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1631	ZENER DIODE MTZJT-776.8A	QDTA0MTZJ6R8
D1632	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1633	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1634	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1635	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1638	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1639	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D1640	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D2201	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D2801	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D2803	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D2804	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D2805	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D2806	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D2807	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
	ICS	
IC1031	IC:VIF/SIF DETECTOR LA75675M-S	QSZBA0TSY009
IC1051	IC HCF4053BEY or	NSMDA0SSS002
	IC:SWITCHING NJU4053BD or	14D0436
	IC TC74HC4053AP	QSBLA0STS047
IC1201⚠	MICRO COMPUTER 16BIT M37760M8H8C4GP	QSZAA0RMB080
IC1202	IC:MEMORY BR24C02F-W or	QSMBA0SRM003
	IC:MEMORY AT24C02N-10SC or	NSMMA0SAZ012

Ref.No.	Description	Part No.
	IC(EEPROM) M24C02-MN6 or	NSMMA0SSS028
	IC:MEMORY BR24C02F	QSMMA0SRM003
IC1281⚠	IC BD6655FP	QSZAA0SRM001
IC1401	IC:Y/C/A LA71091M or	QSZBA0RSY012
	IC:Y/C/A LA71090M	QSZBA0RSY011
IC1602⚠	VOLTAGE REGULATOR KIA7805API	NSBBA0SJY011
⚠	IC:VOLTAGE REGULATOR AN7805F	AN7805F
IC1701	IC:HIFI LA72653M or	QSZBA0RSY013
	IC:HIFI LA72653M-F	QSZBA0RSY017
IC2801	IC:AF POWER AMP LA4285	QSZBA0SSY002
IC2802	IC:AF POWER AMP LA4285	QSZBA0SSY002
COILS		
L1001	PCB JUMPER D0.6-P5.0	JW5.0T
L1005	INDUCTOR 15µH-J-26T or	LLAXJATTU150
	INDUCTOR 15µH-K-26T	LLAXKDTKA150
L1031	VCO COIL R4199-KHIC-856543	LFA08V0KV005
L1034	INDUCTOR 15µH-J-26T or	LLAXJATTU150
	INDUCTOR 15µH-K-26T	LLAXKDTKA150
L1201	PCB JUMPER D0.6-P5.0	JW5.0T
L1202	INDUCTOR 0.10µH-K-26T	LLAXKATTUR10
L1282	PCB JUMPER D0.6-P5.0	JW5.0T
L1402	INDUCTOR 22µH-J-26T or	LLAXJATTU220
	INDUCTOR 22µH-K-26T	LLAXKDTKA220
L1403	PCB JUMPER D0.6-P5.0	JW5.0T
L1404	CHOKE COIL 47µH-K	LLBD00PKV007
L1405	PCB JUMPER D0.6-P5.0	JW5.0T
L1751	INDUCTOR 100µH-K-5FT or	LLARKBSTU101
	INDUCTOR 100µH-K-5FT	LLARKDSKA101
L1871	PCB JUMPER D0.6-P5.0	JW5.0T
L1872	INDUCTOR 47µH-K-5FT or	LLARKBSTU470
	INDUCTOR 47µH-K-5FT	LLARKDSKA470
L2801	INDUCTOR 2.2µH-K-5FT or	LLARKBSTU2R2
	INDUCTOR 2.2µH-K-5FT	LLARKDSKA2R2
L2802	INDUCTOR 2.2µH-K-5FT or	LLARKBSTU2R2
	INDUCTOR 2.2µH-K-5FT	LLARKDSKA2R2
L2803	INDUCTOR 2.2µH-J-26T or	LLAXJATTU2R2
	INDUCTOR 2.2µH-K-26T	LLAXKDTKA2R2
L2804	INDUCTOR 2.2µH-J-26T or	LLAXJATTU2R2
	INDUCTOR 2.2µH-K-26T	LLAXKDTKA2R2
L2805	INDUCTOR 2.2µH-K-5FT or	LLARKBSTU2R2
	INDUCTOR 2.2µH-K-5FT	LLARKDSKA2R2
L2806	INDUCTOR 2.2µH-J-26T or	LLAXJATTU2R2
	INDUCTOR 2.2µH-K-26T	LLAXKDTKA2R2
L2807	INDUCTOR 2.2µH-K-5FT or	LLARKBSTU2R2
	INDUCTOR 2.2µH-K-5FT	LLARKDSKA2R2
L2808	CHOKE COIL 47µH-K	LLBD00PKV007
TRANSISTORS		
Q1031	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q1051	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199

Ref.No.	Description	Part No.
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1052	RES. BUILT-IN TRANSISTOR KRC103M or	NQSZ0KRC103M
	RES. BUILT-IN TRANSISTOR 2SC3400 or	2SC3400Z
	RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q1201	PHOTO TRANSISTOR ST-304L-A or	QPZA00ST304L
	PHOTO TRANSISTOR ST-304L-B or	QPZB00ST304L
	PHOTO TRANSISTOR ST-304L-C	QPZC00ST304L
Q1202	PHOTO TRANSISTOR ST-304L-A or	QPZA00ST304L
	PHOTO TRANSISTOR ST-304L-B or	QPZB00ST304L
	PHOTO TRANSISTOR ST-304L-C	QPZC00ST304L
Q1205	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1206	PHOTO TRANSISTOR PT204-6B-12	NPWZT2046B12
Q1207	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1210	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1211	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1401	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175

Ref.No.	Description	Part No.
Q1402	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q1403	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1404	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1608⚠	TRANSISTOR 2SC2120-O-TPE2	QQS002SC2120
⚠	TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q1609⚠	TRANSISTOR 2SC2120-O-TPE2	QQS002SC2120
⚠	TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q1611⚠	TRANSISTOR 2SD400(F)	QQUF002SD400
Q1612	RES. BUILT-IN TRANSISTOR KRA103M or	NQSZ0KRA103M
	RES. BUILT-IN TRANSISTOR 2SA1346 or	2SA1346Z
	RES. BUILT-IN TRANSISTOR BN1F4M-T	QQSZ00BN1F4M
Q1613	TRANSISTOR 2SD400(F)	QQUF002SD400
Q1871	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q1872	TRANSISTOR 2SC2120-O-TPE2 or	QQS002SC2120
	TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q1873	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1874	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q1875	RES. BUILT-IN TRANSISTOR KRA103M or	NQSZ0KRA103M
	RES. BUILT-IN TRANSISTOR 2SA1346 or	2SA1346Z
	RES. BUILT-IN TRANSISTOR BN1F4M-T	QQSZ00BN1F4M
Q2270	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198

Ref.No.	Description	Part No.
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q2801	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
	RESISTORS	
R1001	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1002	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1003	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1004	CARBON RES. 1/4W J 560 Ω or	RCX4JATZ0561
	CARBON RES. 1/6W J 560 Ω	RCX6JATZ0561
R1005	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1031	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R1033	PCB JUMPER D0.6-P5.0	JW5.0T
R1034	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1035	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
R1037	CARBON RES. 1/4W J 150 Ω or	RCX4JATZ0151
	CARBON RES. 1/6W J 150 Ω	RCX6JATZ0151
R1038	CARBON RES. 1/4W J 560 Ω or	RCX4JATZ0561
	CARBON RES. 1/6W J 560 Ω	RCX6JATZ0561
R1039	CARBON RES. 1/4W J 120 Ω or	RCX4JATZ0121
	CARBON RES. 1/6W J 120 Ω	RCX6JATZ0121
R1041	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1043	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1044	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1045	CARBON RES. 1/4W J 120k Ω	RCX4JATZ0124
R1051	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1053	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1054	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1055	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1056	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1057	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1058	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1059	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R1201	CARBON RES. 1/4W G 4.7k Ω or	RCX4GATZ0472
	CARBON RES. 1/6W G 4.7k Ω	RCX6GATZ0472
R1202	CARBON RES. 1/4W G 22k Ω or	RCX4GATZ0223
	CARBON RES. 1/6W G 22k Ω	RCX6GATZ0223
R1203	CARBON RES. 1/4W G 470 Ω or	RCX4GATZ0471
	CARBON RES. 1/6W G 470 Ω	RCX6GATZ0471
R1204	CARBON RES. 1/4W G 1.5k Ω or	RCX4GATZ0152
	CARBON RES. 1/6W G 1.5k Ω	RCX6GATZ0152
R1205	CARBON RES. 1/4W G 3.6k Ω or	RCX4GATZ0362
	CARBON RES. 1/6W G 3.6k Ω	RCX6GATZ0362

Ref.No.	Description	Part No.
R1206	CARBON RES. 1/4W G 10k Ω or	RCX4GATZ0103
	CARBON RES. 1/6W G 10k Ω	RCX6GATZ0103
R1207	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R1208	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1209	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R1210	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1211	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1212	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R1214	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1215	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R1216	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R1217	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1218	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R1219	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1220	CARBON RES. 1/4W J 390k Ω	RCX4JATZ0394
R1221	PCB JUMPER D0.6-P5.0	JW5.0T
R1222	CARBON RES. 1/4W J 270k Ω	RCX4JATZ0274
R1223	CARBON RES. 1/4W J 560 Ω or	RCX4JATZ0561
	CARBON RES. 1/6W J 560 Ω	RCX6JATZ0561
R1224	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R1225	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1226	PCB JUMPER D0.6-P5.0	JW5.0T
R1227	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R1228	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1229	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
R1230	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1233	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1234	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R1235	CARBON RES. 1/4W J 47 Ω or	RCX4JATZ0470
	CARBON RES. 1/6W J 47 Ω	RCX6JATZ0470
R1236	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1237	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1238	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R1239	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R1240	PCB JUMPER D0.6-P5.0	JW5.0T
R1241	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R1243	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1244	CARBON RES. 1/4W J 1M Ω	RCX4JATZ0105
R1245	CARBON RES. 1/4W J 470 Ω or	RCX4JATZ0471
	CARBON RES. 1/6W J 470 Ω	RCX6JATZ0471
R1247	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R1248	CARBON RES. 1/4W J 470 Ω or	RCX4JATZ0471
	CARBON RES. 1/6W J 470 Ω	RCX6JATZ0471
R1249	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1250	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R1251	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1252	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R1253	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1254	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R1255	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221

Ref.No.	Description	Part No.
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R1256	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R1257	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1258	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R1259	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R1260	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1261	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R1262	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1263	CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683
R1264	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R1265	PCB JUMPER D0.6-P5.0	JW5.0T
R1267	CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683
R1269	PCB JUMPER D0.6-P5.0	JW5.0T
R1270	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1271	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1273	CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R1274	CARBON RES. 1/4W J 680 Ω or	RCX4JATZ0681
	CARBON RES. 1/6W J 680 Ω	RCX6JATZ0681
R1275	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1276	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1277	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1278	CARBON RES. 1/4W J 560 Ω or	RCX4JATZ0561
	CARBON RES. 1/6W J 560 Ω	RCX6JATZ0561
R1280	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1281	METAL OXIDE FILM RES. 1W J 2.2 Ω or	RN012R2DP003
	METAL OXIDE FILM RES. 1W J 2.2 Ω or	RN012R2ZU001
	FIXED METAL OXIDE FILM RES. 1W J 2.2 Ω	RN012R2KE010
R1282	PCB JUMPER D0.6-P5.0	JW5.0T
R1283	CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683
R1284	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1285	CARBON RES. 1/4W J 0.47 Ω	RCX4JATZ0R47
R1288	PCB JUMPER D0.6-P5.0	JW5.0T
R1290	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R1291	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1292	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1293	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1294	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R1295	PCB JUMPER D0.6-P5.0	JW5.0T
R1296	CARBON RES. 1/4W J 120k Ω	RCX4JATZ0124
R1324	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1391	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1392	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1393	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1406	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1407	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1408	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1409	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R1413	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R1414	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R1415	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R1416	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1417	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221

Ref.No.	Description	Part No.
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R1418	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R1419	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R1420	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1421	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R1422	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1423	CARBON RES. 1/4W J 5.6M Ω	RCX4JATZ0565
R1424	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1425	CARBON RES. 1/4W J 82k Ω	RCX4JATZ0823
R1426	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1427	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R1428	CARBON RES. 1/4W J 680k Ω	RCX4JATZ0684
R1429	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R1430	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R1431	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R1434	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1435	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1436	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1437	CARBON RES. 1/4W J 820k Ω	RCX4JATZ0824
R1438	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R1646⚠	METAL OXIDE FILM RES. 1W J 68 Ω	RN01680DP003
⚠	METAL OXIDE FILM RES. 1W J 68 Ω	RN01680ZU001
⚠	METAL RES. 1W J 68 Ω	RN01680KE010
R1647⚠	METAL OXIDE FILM RES. 1W J 68 Ω	RN01680DP003
⚠	METAL OXIDE FILM RES. 1W J 68 Ω	RN01680ZU001
⚠	METAL RES. 1W J 68 Ω	RN01680KE010
R1648⚠	CARBON RES. 1/2W J 18 Ω	RCX2JZQZ0180
⚠	CARBON RES. 1/2W J 18 Ω	RCX2180KA013
⚠	CARBON RES. 1/2W J 18 Ω	RCX2JZPZ0180
R1650	CARBON RES. 1/4W J 22 Ω or	RCX4JATZ0220
	CARBON RES. 1/6W J 22 Ω	RCX6JATZ0220
R1651	CARBON RES. 1/4W J 680 Ω or	RCX4JATZ0681
	CARBON RES. 1/6W J 680 Ω	RCX6JATZ0681
R1652	CARBON RES. 1/4W J 680 Ω or	RCX4JATZ0681
	CARBON RES. 1/6W J 680 Ω	RCX6JATZ0681
R1653	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1656⚠	METAL OXIDE FILM RES. 2W J 15 Ω	RN02150DP004
⚠	METAL OXIDE FILM RES. 2W J 15 Ω	RN02150ZU001
⚠	METAL OXIDE FILM RES. 2W J 15 Ω	RN02150KE010
R1659	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1660	PCB JUMPER D0.6-P5.0	JW5.0T
R1661	CARBON RES. 1/4W J 10 Ω or	RCX4JATZ0100
	CARBON RES. 1/6W J 10 Ω	RCX6JATZ0100
R1751	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1752	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R1753	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1754	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R1755	CARBON RES. 1/4W J 470 Ω or	RCX4JATZ0471
	CARBON RES. 1/6W J 470 Ω	RCX6JATZ0471
R1756	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1757	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1758	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R1759	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1761	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102

Ref.No.	Description	Part No.
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1853	CARBON RES. 1/4W J 2.2M Ω	RCX4JATZ0225
R1856	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R1857	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R1858	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R1859	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R1861	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R1862	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R1863	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R1864	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R1865	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R1866	CARBON RES. 1/4W J 330k Ω	RCX4JATZ0334
R1867	CARBON RES. 1/4W J 150 Ω or	RCX4JATZ0151
	CARBON RES. 1/6W J 150 Ω	RCX6JATZ0151
R1868	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R1869	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R1871	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R1872	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R1873	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R1874	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R1875	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1876	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R1877	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R1878	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R2169	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R2267	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R2268	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R2271	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R2272	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R2273	CARBON RES. 1/4W J 1.8k Ω	RCX4JATZ0182
R2274	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R2701	CARBON RES. 1/4W J 75 Ω or	RCX4JATZ0750
	CARBON RES. 1/6W J 75 Ω	RCX6JATZ0750
R2711	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R2712	PCB JUMPER D0.6-P5.0	JW5.0T
R2721	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R2722	PCB JUMPER D0.6-P5.0	JW5.0T
R2801	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R2802	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R2803	CARBON RES. 1/4W J 1 Ω or	RCX4JATZ0010
	CARBON RES. 1/6W J 1 Ω	RCX6JATZ01R0
R2804	CARBON RES. 1/4W J 1 Ω or	RCX4JATZ0010
	CARBON RES. 1/6W J 1 Ω	RCX6JATZ01R0
R2805	CARBON RES. 1/4W J 3.9k Ω	RCX4JATZ0392
R2806	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R2807	METAL OXIDE FILM RES. 2W J 3.9 Ω or	RN023R9DP004
	METAL OXIDE FILM RES. 2W J 3.9 Ω or	RN023R9ZU001
	METAL OXIDE FILM RES. 2W J 3.9 Ω	RN023R9KE010
R2808	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R2810	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R2813	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R2815	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183

Ref.No.	Description	Part No.
R2816	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R2817	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R2818	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
	SWITCHES	
SW1201	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1202	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1203	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1206	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1207	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1208	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1209	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1210	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW1211	PUSH SWITCH SPPB610301	SSP0102AL001
SW1212	ROTARY MODE SWITCH SSS-43MD or	SSR0106KB001
	ROTARY MODE SWITCH R8100212	SSR0106U3001
	MISCELLANEOUS	
CF1031	4.5M FILTER LTH4.5MCB or	FBB455PLN001
	CERAMIC FILTER SFSRA4M50CF00-B0	FBB455PMR004
CF1032	4.5M TRAP XT4.5MB2 or	FBE455PLN001
	CERAMIC TRAP 4.5MHz	FBE455PMR003
JK2701	RCA JACK(YELLOW) MTJ-032-05B-22	JXRL010LY039
JK2702	RCA JACK(WHITE) MTJ-032-05B-20	JXRL010LY038
JK2703	RCA JACK(RED) MTJ-032-05A-21	JYRL010LY010
JK2801	MINI JACK HSJ2000-01-010 or	JYSL010HD002
	MINI JACK MSJ-2000	JYSL010LY003
LD1001	LEAD WIRE UL1007 AWG24 ³¤280MM	WX3001A4FF28
RS1201	REMOTE RECEIVER MIM-93M6DKF	USESJRSUNT01
SF1001	SAW FILTER SAFGP45M7VHEZM0B03 or	FBB456PMR005
	SAW FILTER SAFGP45M7VHBZL2B03	FBB456PMR004
TB3	HEAD SHIELD T5200UA	0EM301417
TB5	HOLDER, SENSOR(2) H5700UD	0VM304011
TB7	LED HOLDER TD350UA	0EM406580
TB13	BUSH, LED(F) H3700UD	0VM409508
TP1001	PCB JUMPER D0.6-P10.0	JW10.0T
TP1002	PCB JUMPER D0.6-P10.0	JW10.0T
TP1201	PCB JUMPER D0.6-P10.0	JW10.0T
TP1301	PCB JUMPER D0.6-P22.5	JW22.5T
TP1401	PCB JUMPER D0.6-P10.0	JW10.0T
TP1402	PCB JUMPER D0.6-P22.5	JW22.5T
TP1631	PCB JUMPER D0.6-P15.0	JW15.0T
TP1701	PCB JUMPER D0.6-P22.5	JW22.5T
TP1702	PCB JUMPER D0.6-P22.5	JW22.5T
TP1801	PCB JUMPER D0.6-P10.0	JW10.0T
TP1802	PCB JUMPER D0.6-P10.0	JW10.0T

Ref.No.	Description	Part No.
TU1001	TUNER B8095AP or	UTUNNTUSP018
	TUNER TEDH9-300A	UTUNNTUAL025
X1201	X'TAL 32kHz(10PPM) or	1811351
	X'TAL 32.768kHz or	FXB323LDS002
	X'TAL 32kHz(10PPM) or	1811350
	X'TAL 32.768kHz(20PPM) or	FXC323LCT001
	X'TAL 32.768kHz(20PPM)	FXC323LDS002
X1202	X'TAL HC-49/U 10.6MHz or	FXD106LLN001
	X'TAL AT49-10.6 or	FXD106LDS002
	X'TAL :10.6MHz S8562	FXD106LCT001
X1401	X'TAL 3.579545MHz or	FXC355LLN001
	X'TAL 3.579545MHz	1811389

MPS CBA

Ref.No.	Description	Part No.
	MPS CBA (MPS-A CBA + MPS-B CBA) Consists of the following	0ESA04462
	MPS-A CBA MPS-B CBA	--------- ---------

MPS-A CBA

Ref.No.	Description	Part No.
	MPS-A CBA Consists of the following	---------
	CAPACITORS	
C3001	ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMASSL470
C3002	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3003	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3004	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3005	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3006	ELECTROLYTIC CAP. 0.47µF/50V M H7	CE1JMASSLR47
C3007	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3008	ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMASSL470
C3009	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3010	ELECTROLYTIC CAP. 47µF/6.3V M H7	CE0KMASSL470
C3011	CERAMIC CAP.(AX) CH J 10PF/50V	CCA1JJTCH100
C3012	CERAMIC CAP.(AX) CH J 18PF/50V	CCA1JJTCH180
C3013	CERAMIC CAP.(AX) CH J 18PF/50V	CCA1JJTCH180
C3014	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3015	ELECTROLYTIC CAP. 100µF/6.3V M H7	CE0KMASSL101
C3016	ELECTROLYTIC CAP. 47µF/25V M H7	CE1EMASSL470
C3017	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3018	FILM CAP.(P) 0.01µF/50V J or	CMA1JJS00103
	FILM CAP.(P) 0.01µF/50V J or	CA1J103MS029
	FILM CAP.(P) 0.01µF/50V J TV	CMB1JJS00103
C3019	CERAMIC CAP.(AX) CH J 180PF/50V	CA1J181TU008
C3020	ELECTROLYTIC CAP. 47µF/10V M H7	CE1AMASSL470
C3021	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3022	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3023	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3024	CERAMIC CAP.(AX) SL J 47PF/50V	CCA1JJTSL470
C3201	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C3202	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C3203	CERAMIC CAP.(AX) F Z 0.022µF/50V	CCA1EZTFZ223
C3204	ELECTROLYTIC CAP. 47µF/16V M H7	CE1CMASSL470

Ref.No.	Description	Part No.
C3205	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C3206	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C3209	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3211	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C3212	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C3214	CERAMIC CAP.(AX) F Z 0.022µF/50V	CCA1EZTFZ223
C3215	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C3217	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C3218	CERAMIC CAP.(AX) F Z 0.022µF/50V	CCA1EZTFZ223
C3219	CERAMIC CAP.(AX) B K 100PF/50V	CCA1JKT0B101
C3222	CERAMIC CAP.(AX) B K 100PF/50V	CCA1JKT0B101
C3223	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C3224	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C3225	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C3226	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C3227	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C3228	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C3229	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C3230	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C3231	CERAMIC CAP.(AX) B K 470PF/50V	CCA1JKT0B471
C3232	CERAMIC CAP.(AX) B K 470PF/50V	CCA1JKT0B471
C3233	CERAMIC CAP.(AX) B K 470PF/50V	CCA1JKT0B471
C3234	CERAMIC CAP.(AX) B K 470PF/50V	CCA1JKT0B471
C3236	CERAMIC CAP.(AX) CH J 22PF/50V	CA1J220TU008
C3237	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C3238	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C3239	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C3243	CERAMIC CAP.(AX) F Z 0.022µF/50V	CCA1EZTFZ223
C3245	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C3253	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C3261	ELECTROLYTIC CAP. 100µF/6.3V M or	CE0KMASDL101
	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASTL101
C3262	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C3263	CERAMIC CAP.(AX) X K 3300PF/16V	CCA1CKT0X332
C3264	CERAMIC CAP.(AX) X K 3300PF/16V	CCA1CKT0X332
C3266	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C3267	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASTL100
C3298	ELECTROLYTIC CAP. 22µF/50V M or	CE1JMASDL220
	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASTL220
C3299	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3301	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103

Ref.No.	Description	Part No.
C3302	ELECTROLYTIC CAP. 220µF/6.3V M H7	CE0KMASSL221
C3303	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3304	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C3305	CERAMIC CAP.(AX) Y M 0.01µF/16V	CCA1CMT0Y103
C3309	ELECTROLYTIC CAP. 100µF/10V M H7	CE1AMASSL101
C3311	PCB JUMPER D0.6-P5.0	JW5.0T
C3312	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.01µF/50V J TV	CMB1JJS00103
C3313	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3314	ELECTROLYTIC CAP. 100µF/10V M H7	CE1AMASSL101
C3316	PCB JUMPER D0.6-P5.0	JW5.0T
C3317	PCB JUMPER D0.6-P5.0	JW5.0T
C3318	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C3319	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C3321	FILM CAP.(P) 0.015µF/50V J or	CMA1JJS00153
	FILM CAP.(P) 0.015µF/50V J or	CA1J153MS029
	FILM CAP.(P) 0.015µF/50V J TV	CMB1JJS00153
C3322	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C3324	ELECTROLYTIC CAP. 220µF/10V M H7	CE1AMASSL221
C3325	ELECTROLYTIC CAP. 220µF/10V M H7	CE1AMASSL221
C3347	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3348	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3351	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3353	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3354	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3356	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3361	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3362	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3365	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C3366	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C3367	CERAMIC CAP.(AX) CH J 100PF/50V	CA1J101TU008
C3399	ELECTROLYTIC CAP. 47µF/10V M H7	CE1AMASSL470
C3482	ELECTROLYTIC CAP. 100µF/6.3V M or	CE0KMASDL101
	ELECTROLYTIC CAP. 100µF/6.3V M	CE0KMASTL101
If C3602 is 4700pF, then C3603 is PCB JUMPER.		
C3602	SAFETY CAP. 4700PF/125V MX or	CCF2BMA0F472
	SAFETY CAP. 4700PF/250V KX	CA2E472MR050
C3603	PCB JUMPER P10.0MM	JW10.0
If C3602 is 0.01µF, then C3603 is 0.01µF.		
C3602	SAFETY CAP. F M 0.01µF/250V or	CCG2EMP0F103
	SAFETY CAP. TS 0.01µF/250V or	CCE2EMA0F103
	CERAMIC CAP. 0.01UF F CS or	CCG2HMN0F103
	SAFETY CAP. 10000PF/250V	CCG2EMA0F103
C3603	SAFETY CAP. F M 0.01µF/250V or	CCG2EMP0F103
	SAFETY CAP. TS 0.01µF/250V or	CCE2EMA0F103
	CERAMIC CAP. 0.01UF F CS or	CCG2HMN0F103
	SAFETY CAP. 10000PF/250V	CCG2EMA0F103
C3611	CERAMIC CAP. BN 560PF/2KV or	CCD3DKA0B561
	CERAMIC CAP. LB 560PF/2KV or	CA3D561KG004
	CERAMIC CAP. 560PF/2KV	CA3D561PAN04
C3612	FILM CAP.(P) 0.022µF/50V J or	CMA1JJS00223
	FILM CAP.(P) 0.022µF/50V J or	CA1J223MS029
	FILM CAP.(P) 0.022µF/50V J TV	CMB1JJS00223

Ref.No.	Description	Part No.
C3613	CERAMIC CAP. B K 680PF/50V	CCD1JKS0B681
C3614	STACKED FILM CAP. 0.12µF/50V J or	CMA1JJS00124
	FILM CAP.(P) 0.12µF/50V J or	CA1J124MS029
	FILM CAP.(P) 0.12µF/50V J TV	CMB1JJS00124
C3615	CERAMIC CAP. BN 820PF/2KV or	CCD3DKA0B821
	CERAMIC CAP. LB 820PF/2KV or	CA3D821KG004
	CERAMIC CAP. 820PF/2KV	CA3D821PAN04
C3616	ELECTROLYTIC CAP. 100µF/160V M or	CE2CMZPDL101
	ELECTROLYTIC CAP. 100µF/160V M	CE2CMZZTL101
C3617	ELECTROLYTIC CAP. 470µF/35V M or	CE1GMASDL471
	ELECTROLYTIC CAP. 470µF/35V M	CE1GMASTL471
C3618	ELECTROLYTIC CAP. 1000µF/16V M or	CE1CMZPDL102
	ELECTROLYTIC CAP. 1000µF/16V M	CE1CMZZTL102
C3619	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C3620	ELECTROLYTIC CAP. 1000µF/16V M or	CE1CMZPDL102
	ELECTROLYTIC CAP. 1000µF/16V M	CE1CMZZTL102
C3621	ELECTROLYTIC CAP. 1000µF/16V M or	CE1CMZPDL102
	ELECTROLYTIC CAP. 1000µF/16V M	CE1CMZZTL102
C3622	CERAMIC CAP.(AX) B K 220PF/50V	CCA1JKT0B221
C3623	FILM CAP.(P) 0.018µF/50V J or	CMA1JJS00183
	FILM CAP.(P) 0.018µF/50V J or	CA1J183MS029
	FILM CAP.(P) 0.018µF/50V J TV	CMB1JJS00183
C3624	CERAMIC CAP.(AX) B K 0.01µF/50V	CA1J103TU011
C3625	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
C3626	ELECTROLYTIC CAP. 4.7µF/50V M or	CE1JMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/50V M	CE1JMASTL4R7
C3632	ELECTROLYTIC CAP. 220µF/16V M or	CE1CMASDL221
	ELECTROLYTIC CAP. 220µF/16V M	CE1CMASTL221
C3633	ELECTROLYTIC CAP. 47µF/25V M or	CE1EMASDL470
	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASTL470
C3634	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C3698	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C3699	ALMINIUM ELECTROLYTIC CAP150µF/200V or	CA2D151NC088
	ELECTROLYTIC CAPACIT0R 150µF/200V	CA2D151S6012
C4410	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASDL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASTL101
C4431	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C4432	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C4601	CERAMIC CAP. BN J 150PF/2KV or	CCD3DKA0B151
	CERAMIC CAP 150PF/2KV or	CA3D151KG004
	CERAMIC CAP. 150PF/2KV	CA3D151PAN04
C4604	CERAMIC CAP. B K 3300PF/50V	CCD1JKS0B332
C4605	CERAMIC CAP. B K 5600PF/50V	CCD1JKS0B562
C4607	ELECTROLYTIC CAP. 10µF/16V M or	CE1CMASDL100
	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASTL100
C4608	CERAMIC CAP.(AX) F Z 0.022µF/50V	CCA1EZTFZ223
C4620	CERAMIC CAP.(AX) X M 5600PF/16V	CCA1CMT0X562
C4621	ELECTROLYTIC CAP. 1000µF/10V M or	CE1AMZPDL102
	ELECTROLYTIC CAP. 1000µF/10V M or	CE1AMZPTL102
	ELECTROLYTIC CAP. 1000µF/10V	CE1AMZZTL102
C4622	FILM CAP.(P) 0.018µF/50V J or	CMA1JJS00183
	FILM CAP.(P) 0.018µF/50V J or	CA1J183MS029
	FILM CAP.(P) 0.018µF/50V J TV	CMB1JJS00183
C4623	ELECTROLYTIC CAP. 1000µF/16V M or	CE1CMZPDL102
	ELECTROLYTIC CAP. 1000µF/16V M	CE1CMZZTL102
C4625	ELECTROLYTIC CAP. 1000µF/6.3V M or	CE0KMASDL102
	ELECTROLYTIC CAP. 1000µF/6.3V M	CE0KMASTL102
C4626	ELECTROLYTIC CAP. 470µF/16V M or	CE1CMASDL471
	ELECTROLYTIC CAP. 470µF/16V M	CE1CMASTL471
C4628	CERAMIC CAP. B K 1800PF/50V	CCD1JKS0B182
C4630	SAFETY CAP. 1000PF/125V MX or	CCF2BMA0E102
	SAFETY CAP. 1000PF/250V KX	CA2E102MR050
C4651	CERAMIC CAP. B K 1800PF/100V	CCD2AKS0B182
C4652	CERAMIC CAP. B K 1800PF/50V	CCD1JKS0B182
	CONNCETORS	
CN3202	TWG CONNECTOR 13P TWG-P13P-A1	J3TWA13TG001
CN3203	TWG CONNECTOR 13P TWG-P13P-A1	J3TWA13TG001
CN3204	TWG CONNECTOR 13P TWG-P13P-A1	J3TWA13TG001
CN3205	TWG CONNECTOR 13P TWG-P13P-A1	J3TWA13TG001
CN3206	TWG CONNECTOR 13P TWG-P13P-A1	J3TWA13TG001
CN3400	STRAIGHT CONNECTOR BASE 00 8283 0212 00 000 or	J383C02UG002
	STRAIGHT PIN HEADER, 2P 173981-2	1770258
CN3401	CONNECTOR 10P TKC-A10P-G1	JCTKB10TG004
CN3402	CONNECTOR 10P TKC-A10P-G1	JCTKB10TG004
CN3403	CONNECTOR 10P TKC-A10P-G1	JCTKB10TG004
CN3404	STRAIGHT CONNECTOR BASE 00 8283 0212 00 000 or	J383C02UG002
	STRAIGHT PIN HEADER, 2P 173981-2	1770258
CN3606	CONNECTOR BASE 12P TKC-A12P-H1	JCTKC12TG005
	DIODES	
D3201	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3202	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3205	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D3206	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D3207	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3208	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3241	ZENER DIODE MTZJT-775.1B	QDTB0MTZJ5R1
D3302	ZENER DIODE MTZJT-778.2B	QDTB0MTZJ8R2
D3304	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D3305	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D3306	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D3307	ZENER DIODE MTZJT-778.2B	QDTB0MTZJ8R2
D3308	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3309	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3483	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3607	ZENER DIODE MTZJT-7724C	QDTC00MTZJ24
D3609	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3610	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2

Ref.No.	Description	Part No.
D3611	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3612	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3613	DIODE ERD29-06J	QD4Z0ERD2906
D3614	DIODE FR104-B or	NDLZ000FR104
	RECTIFIER DIODE 10ELS2 or	QDQZ0010ELS2
	RECTIFIER DIODE ERA22-02	QDPZ0ERA2202
D3615	DIODE 1ZC33	QDQZ0001ZC33
D3616	SCHOTTKY BARRIER DIODE 21DQ04 or	QDQZ0021DQ04
	SCHOTTKY BARRIER DIODE ERB81-004	AERB81004***
D3617	DIODE FR154 or	NDLZ000FR154
	FAST RECOVERY DIODE ERB44-02	QDPZ0ERB4402
D3618	SCHOTTKY BARRIER DIODE 11EQS04 or	QD4Z011EQS04
	SCHOTTKY BARRIER DIODE ERA81-004	QDPZERA81004
D3619	DIODE FR104-B or	NDLZ000FR104
	RECTIFIER DIODE 10ELS2 or	QDQZ0010ELS2
	RECTIFIER DIODE ERA22-02	QDPZ0ERA2202
D3620	ZENER DIODE MTZJT-776.8B	QDTB0MTZJ6R8
D3621	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3622	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3623	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3626	ZENER DIODE MTZJT-7736A	QDTA00MTZJ36
D3627	ZENER DIODE MTZJT-7720B	QDTB00MTZJ20
D3628	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3634	ZENER DIODE MTZJT-778.2B	QDTB0MTZJ8R2
D3635	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3636	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3641	ZENER DIODE MTZJT-7736A	QDTA00MTZJ36
D3645	SCHOTTKY BARRIER DIODE 11EQS04 or	QD4Z011EQS04
	SCHOTTKY BARRIER DIODE ERA81-004	QDPZERA81004
D3657	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3660	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3661	ZENER DIODE MTZJT-775.6C	QDTC0MTZJ5R6
D3662	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D3663	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D4402	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T

Ref.No.	Description	Part No.
D4403	ZENER DIODE MTZJT-7713B	QDTB00MTZJ13
D4404	PCB JUMPER D0.6-P5.0	JW5.0T
D4432	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D4602	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D4603	ZENER DIODE MTZJT-7724C	QDTC00MTZJ24
D4604A	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D4605	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D4606	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D4607	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D4608	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D4609	SCHOTTKY BARRIER DIODE 21DQ04 or	QDQZ0021DQ04
	SCHOTTKY BARRIER DIODE ERB81-004	AERB81004***
D4610	ZENER DIODE MTZJT-779.1C	QDTC0MTZJ9R1
D4611	RECTIFIER DIODE 1N4005	NDQZ001N4005
D4612	FAST RECOVERY DIODE ERB32-01	QDPZ0ERB3201
D4613	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D4615	RECTIFIER DIODE FR202	NDQZ000FR202
D4616	RECTIFIER DIODE 1N4005	NDQZ001N4005
D4617	ZENER DIODE MTZJT-7736A	QDTA00MTZJ36
D4618	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D4619	DIODE FR104-B or	NDLZ000FR104
	RECTIFIER DIODE 10ELS2 or	QDQZ0010ELS2
	RECTIFIER DIODE ERA22-02	QDPZ0ERA2202
D4620	ZENER DIODE MTZJT-7715A	QDTA00MTZJ15
D4621	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
	ICS	
IC3001	IC:NTSC 3LINE COMB FILTERTC90A49P	QSZBA0STS090
IC3201	IC HCF4053BEY or	NSMDA0SSS002
	IC:SWITCHING NJU4053BD or	14D0436
	IC TC74HC4053AP	QSBLA0STS047
IC3202	IC HCF4053BEY or	NSMDA0SSS002
	IC:SWITCHING NJU4053BD or	14D0436
	IC TC74HC4053AP	QSBLA0STS047
IC3203	IC(OPAMP) NJM4558D	QSZBA0SJR006
IC3301	IC:CHROMA/IF 1 CHIP M61206FP-61	QSZAB0RMB011
IC3611	PHOTOCOUPLER LTV-817B-F or	NPEB0LTV817F
	PHOTOCOUPLER LTV-817C-F or	NPEC0LTV817F
	PHOTO COUPLER PC817X6	QPE600PC817X
IC4601	PHOTOCOUPLER LTV-817B-F or	NPEB0LTV817F
	PHOTOCOUPLER LTV-817C-F or	NPEC0LTV817F
	PHOTO COUPLER PC817X6	QPE600PC817X
	COILS	
J3203	INDUCTOR 10µH-J-26T or	LLAXJATTU100
	INDUCTOR 10µH-K-26T	LLAXKDTKA100
J3404	INDUCTOR 10µH-J-26T or	LLAXJATTU100
	INDUCTOR 10µH-K-26T	LLAXKDTKA100
L3001	INDUCTOR 15µH-K-5FT or	LLARKBSTU150
	INDUCTOR 15µH-K-5FT	LLARKDSKA150

Ref.No.	Description	Part No.
L3002	INDUCTOR 15µH-K-5FT or	LLARKBSTU150
	INDUCTOR 15µH-K-5FT	LLARKDSKA150
L3003	INDUCTOR 15µH-K-5FT or	LLARKBSTU150
	INDUCTOR 15µH-K-5FT	LLARKDSKA150
L3004	INDUCTOR 15µH-K-5FT or	LLARKBSTU150
	INDUCTOR 15µH-K-5FT	LLARKDSKA150
L3005	INDUCTOR 15µH-K-5FT or	LLARKBSTU150
	INDUCTOR 15µH-K-5FT	LLARKDSKA150
L3202	CHOKE COIL 47µH-K	LLBD00PKV007
L3203	INDUCTOR 2.2µH-J-26T or	LLAXJATTU2R2
	INDUCTOR 2.2µH-K-26T	LLAXKDTKA2R2
L3204	INDUCTOR 2.2µH-J-26T or	LLAXJATTU2R2
	INDUCTOR 2.2µH-K-26T	LLAXKDTKA2R2
L3206	INDUCTOR 2.2µH-J-26T or	LLAXJATTU2R2
	INDUCTOR 2.2µH-K-26T	LLAXKDTKA2R2
L3207	INDUCTOR 2.2µH-J-26T or	LLAXJATTU2R2
	INDUCTOR 2.2µH-K-26T	LLAXKDTKA2R2
L3208	INDUCTOR 2.2µH-K-5FT or	LLARKBSTU2R2
	INDUCTOR 2.2µH-K-5FT	LLARKDSKA2R2
L3301	PCB JUMPER D0.6-P5.0	JW5.0T
L3302	PCB JUMPER D0.6-P5.0	JW5.0T
L3303	PCB JUMPER D0.6-P5.0	JW5.0T
L3401	INDUCTOR 2.2µH-K-5FT or	LLARKBSTU2R2
	INDUCTOR 2.2µH-K-5FT	LLARKDSKA2R2
L3402	INDUCTOR 2.2µH-K-5FT or	LLARKBSTU2R2
	INDUCTOR 2.2µH-K-5FT	LLARKDSKA2R2
L4403	INDUCTOR 22µH-J-26T or	LLAXJATTU220
	INDUCTOR 22µH-K-26T	LLAXKDTKA220
L4601	INDUCTOR 10µH-J-26T or	LLAXJATTU100
	INDUCTOR 10µH-K-26T	LLAXKDTKA100
L4602	INDUCTOR 10µH-J-26T or	LLAXJATTU100
	INDUCTOR 10µH-K-26T	LLAXKDTKA100
	TRANSISTORS	
Q3001	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q3002	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3003	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3004	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3202	RES. BUILT-IN TRANSISTOR KRC103M or	NQSZ0KRC103M
	RES. BUILT-IN TRANSISTOR 2SC3400 or	2SC3400Z
	RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q3203	RES. BUILT-IN TRANSISTOR KRC103M or	NQSZ0KRC103M
	RES. BUILT-IN TRANSISTOR 2SC3400 or	2SC3400Z
	RES. BUILT-IN TRANSISTOR BA1F4M-T	QQSZ00BA1F4M
Q3205	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3208	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3209	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3212	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q3213	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q3214	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785

Ref.No.	Description	Part No.
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3215	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3391	TRANSISTOR 2SC1627Y-TPE2	QQSY02SC1627
Q3481	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q3482	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3483	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q3484	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3601	FET 2SK3407	QFFZ02SK3407
Q3602	TRANSISTOR 2SC2120-O-TPE2 or	QQS002SC2120
	TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q3603	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA

Ref.No.	Description	Part No.
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3604	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3605	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3606	TRANSISTOR 2SA950(O) or	Q2SA9500TPE2
	TRANSISTOR 2SA950(Y)	Q2SA950YTPE2
Q3607	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q3608	TRANSISTOR 2SC2120-O-TPE2 or	QQS002SC2120
	TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q4405	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q4406	TRANSISTOR 2SA950(O) or	Q2SA9500TPE2
	TRANSISTOR 2SA950(Y)	Q2SA950YTPE2
Q4408	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q4601	MOS FET 2SK2662	QF5Z02SK2662
Q4602	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785

Ref.No.	Description	Part No.
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q4603	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q4604	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q4605	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q4606	TRANSISTOR 2SD400(F)	QQUF002SD400
	RESISTORS	
R3001	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3005	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3006	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3007	CARBON RES. 1/4W J 27k Ω	RCX4JATZ0273
R3008	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R3009	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3010	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3011	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3012	PCB JUMPER D0.6-P5.0	JW5.0T
R3200	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3203	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3204	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3205	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3206	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3207	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473

Ref.No.	Description	Part No.
R3208	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R3210	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3211	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3212	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3214	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3215	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3217	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3220	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3221	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3225	CARBON RES. 1/4W J 75 Ω or	RCX4JATZ0750
	CARBON RES. 1/6W J 75 Ω	RCX6JATZ0750
R3226	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3227	CARBON RES. 1/4W J 2k Ω	RCX4JATZ0202
R3228	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3229	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R3230	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3232	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3233	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R3234	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3237	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R3243	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3244	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R3245	PCB JUMPER D0.6-P5.0	JW5.0T
R3246	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3247	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3248	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R3249	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3250	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3253	CARBON RES. 1/4W J 9.1k Ω	RCX4JATZ0912
R3254	CARBON RES. 1/4W J 9.1k Ω	RCX4JATZ0912
R3255	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R3256	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R3257	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R3258	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R3259	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R3260	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R3261	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3262	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3264	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3265	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3274	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R3275	PCB JUMPER D0.6-P5.0	JW5.0T
R3280	PCB JUMPER D0.6-P5.0	JW5.0T
R3281	PCB JUMPER D0.6-P5.0	JW5.0T
R3283	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R3284	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R3285	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R3287	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R3301	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3302	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101

Ref.No.	Description	Part No.
R3303	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R3304	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3305	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R3306	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R3307	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3308	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R3309	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3310	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R3311	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3312	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R3313	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3314	CARBON RES. 1/4W J 12 Ω or	RCX4JATZ0120
	CARBON RES. 1/6W J 12 Ω	RCX6JATZ0120
R3315	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R3316	CARBON RES. 1/4W J 680k Ω	RCX4JATZ0684
R3317	CARBON RES. 1/4W J 120k Ω	RCX4JATZ0124
R3318	CARBON RES. 1/4W J 15k Ω	RCX4JATZ0153
R3319	CARBON RES. 1/4W J 270k Ω	RCX4JATZ0274
R3320	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R3324	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R3325	CARBON RES. 1/4W J 27k Ω	RCX4JATZ0273
R3357	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3391	CARBON RES. 1/4W J 470 Ω or	RCX4JATZ0471
	CARBON RES. 1/6W J 470 Ω	RCX6JATZ0471
R3392	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3399	CARBON RES. 1/4W J 33 Ω or	RCX4JATZ0330
	CARBON RES. 1/6W J 33 Ω	RCX6JATZ0330
R3401	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R3402	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R3403	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3404	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R3406	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R3407	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R3412	PCB JUMPER D0.6-P5.0	JW5.0T
R3413	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3414	PCB JUMPER D0.6-P5.0	JW5.0T
R3481	CARBON RES. 1/4W J 75 Ω or	RCX4JATZ0750
	CARBON RES. 1/6W J 75 Ω	RCX6JATZ0750
R3482	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R3483	CARBON RES. 1/4W J 820 Ω or	RCX4JATZ0821
	CARBON RES. 1/6W J 820 Ω	RCX6JATZ0821
R3484	PCB JUMPER D0.6-P5.0	JW5.0T
R3485	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3486	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R3488	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3489	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3490	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682

Ref.No.	Description	Part No.
R3491	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R3603	METAL OXIDE FILM RES. 2W J 0.22 Ω or	RN02R22DP004
	METAL OXIDE FILM RES. 2W J 0.22 Ω or	RN02R22ZU001
	METAL OXIDE FILM RES. 2W J 0.22 Ω	RN02R22KE010
R3604	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R3605	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R3606	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R3607	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R3608	CARBON RES. 1/4W J 180k Ω	RCX4JATZ0184
R3609	PCB JUMPER D0.6-P5.0	JW5.0T
R3610	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R3611	PCB JUMPER D0.6-P5.0	JW5.0T
R3613	CARBON RES. 1/4W J 150 Ω or	RCX4JATZ0151
	CARBON RES. 1/6W J 150 Ω	RCX6JATZ0151
R3614	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R3616	CARBON RES. 1/4W J 47 Ω or	RCX4JATZ0470
	CARBON RES. 1/6W J 47 Ω	RCX6JATZ0470
R3617	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R3618	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R3619	CARBON RES. 1/4W J 270 Ω or	RCX4JATZ0271
	CARBON RES. 1/6W J 270 Ω	RCX6JATZ0271
R3620	CEMENT RES. 5W J 3.3k Ω or	RW05332DP008
	CEMENT RES. 5W K 3.3k Ω or	RW05332PG004
	CEMENT RESISTOR RS-SQZ05332J	RW05332Y4004
R3621	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R3622	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R3623	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R3624	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3625	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R3626	CARBON RES. 1/4W J 82 Ω or	RCX4JATZ0820
	CARBON RES. 1/6W J 82 Ω	RCX6JATZ0820
R3627	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3628	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R3629	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R3630	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R3631	CARBON RES. 1/4W J 12k Ω	RCX4JATZ0123
R3632	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
R3633	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R3634	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R3635	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3639	METAL OXIDE FILM RES. 2W J 680 Ω or	RN02681DP004
	METAL OXIDE FILM RES. 2W J 680 Ω or	RN02681ZU001
	METAL OXIDE FILM RES. 2W J 680 Ω	RN02681KE010
R3640	CARBON RES. 1/4W J 56k Ω	RCX4JATZ0563
R3641	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R3642	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R3644	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R3645	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R3654	METAL OXIDE FILM RES. 1W J 2.2 Ω or	RN012R2DP003
	METAL OXIDE FILM RES. 1W J 2.2 Ω or	RN012R2ZU001
	FIXED METAL OXIDE FILM RES. 1W J 2.2 Ω	RN012R2KE010
R3655	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R3660	METAL OXIDE FILM RES. 1W J 18 Ω or	RN01180DP003
	METAL OXIDE FILM RES. 1W J 18 Ω or	RN01180ZU001

Ref.No.	Description	Part No.
	FIXED METAL OXIDE FILM RES. 1W J 18 Ω	RN01180KE010
R3661	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
R3662	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R3663	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R4412	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R4413	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R4414	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R4415	CARBON RES. 1/4W J 3.3 Ω or	RCX4JATZ03R3
	CARBON RES. 1/6W J 3.3 Ω	RCX6JATZ03R3
R4416	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R4417	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R4418	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R4419	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R4420	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R4421	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R4604	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R4605	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R4606	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R4607	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R4608	CARBON RES. 1/4W J 390k Ω	RCX4JATZ0394
R4609	METAL OXIDE FILM RES. 1W J 1.2 Ω or	RN011R2DP003
	METAL OXIDE FILM RES. 1W J 1.2 Ω or	RN011R2ZU001
	FIXED METAL OXIDE FILM RES. 1W J 1.2 Ω	RN011R2KE010
R4610	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R4611	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R4614	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R4615	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R4616	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R4617	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R4618	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R4620	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R4621	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R4622	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R4623	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R4624	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
R4625	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R4626	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R4627	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
	SWITCHES	
SW3401	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW3402	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW3403	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW3404	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW3405	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW3406	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW3407	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
SW3408	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH SKHHAM or	SST0101AL029
	TACT SWITCH KSM0612B	SST0101HH003
	MISCELLANEOUS	
BC3201	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC3202	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC3600	PCB JUMPER D0.6-P5.0	JW5.0T
BC3602	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC3604	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC3605	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC3606	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
BC3607	BEAD CORE B16 RH 3.5X10X1.3 or	XL03010XM001
	BEAD CORE HF70BB3.5X10X1.3	XL03010TE001
BC4601	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
JK3201	3PIN JACK AV MSP-243VS-23	JXRL030LY037
LD3201	GND WIRE	WX1TD350-003
LD3600	LEAD WIRE 2P	WX1TD350-002
LD3601	WIRE 080/BLA/AWG22/#1015	WX3001C2FF08
LD3602	WIRE 100/BRO/AWG22/#1015	WX3101C2FF10
LD3603	WIRE 160/BLA/AWG20/#1672	WX3001GAFF16
T3601	SWITCHING TRANS KD01734	LTT00CPKT083
T4601	PULSE TRANS SA-00718R	LTT00CPSA094
TB17	19VPOW HEAT SINK PFQ ASSEMBLY TD350UA	0EM406579
TB8	EARTH PLATE TD100UA	0EM405943A
TL6	B-TITE SCREW 3X8 BIND + CHROME	GBMB3080
TP3201	PCB JUMPER D0.6-P10.0	JW10.0T
TP3202	PCB JUMPER D0.6-P10.0	JW10.0T
TP3401	PCB JUMPER D0.6-P10.0	JW10.0T
TP3402	PCB JUMPER D0.6-P10.0	JW10.0T
VR3601	CARBON P.O.T. 10k Ω B or	VRCB103KA012
	CARBON P.O.T. 10k Ω B	VRCB103HH002
X3301	X'TAL 3.579545 MHz	FXD355LLN003

MPS-B CBA

Ref.No.	Description	Part No.
	MPS-B CBA Consists of the following	---------
	CAPACITORS	
C3605	METALLIZED FILM CAP. 0.1µF/250V or	CT2E104MS037
	FILM CAP.(MP) 0.1µF/250V K or	CT2E104DC011
	FILM CAP.(MP) 0.1µF/250V M	CT2E104DC009
C3606	CERAMIC CAP. F Z 0.01µF/500V or	CCD2JZD0F103
	CERAMIC CAP. 0.01µF/AC250V	CCD2EZA0F103
C3607	CERAMIC CAP. F Z 0.01µF/500V or	CCD2JZD0F103
	CERAMIC CAP. 0.01µF/AC250V	CCD2EZA0F103
C3608	CERAMIC CAP. F Z 0.01µF/500V or	CCD2JZD0F103
	CERAMIC CAP. 0.01µF/AC250V	CCD2EZA0F103
C3609	CERAMIC CAP. F Z 0.01µF/500V or	CCD2JZD0F103
	CERAMIC CAP. 0.01µF/AC250V	CCD2EZA0F103
C3610	ELECTROLYTIC CAP. 470µF/200V or	CA2D471NC013

Ref.No.	Description	Part No.
	ELECTROLYTIC CAP. 470µF/200V M W/F	CA2D471EA029
	CONNCETORS	
CN3601	CONNECTOR BASE, 2P TV-50P-02-V3 or	J3TVC02TG002
	CONNECTOR BASE, 2P RTB-1.5-2P	J3RTC02JG001
CN3602	CONNECTOR BASE, 6P TUC-P06P-B1	J3TUA06TG001
CN3603	CONNECTOR, 2P B2P-VH	J3VHC02JG002
CN3604	CONNECTOR 12P TKC-A12X-B1	JCTKC12TG003
	DIODES	
D3603	DIODE 1N5406	NDLZ001N5406
D3604	DIODE 1N5406	NDLZ001N5406
D3605	DIODE 1N5406	NDLZ001N5406
D3606	DIODE 1N5406	NDLZ001N5406
	COIL	
L3601⚠	LINE FILTER 8.2MH ELF21V018A	LLBG00ZMS036
	RESISTORS	
R3602	CEMENT RES. 7W K 1.2 Ω or	RW071R2DP007
	CEMENT RESISTOR 7W K 1.2 Ω H=25MM	RW071R2PG002
	MISCELLANEOUS	
BC3601	BEAD INDUCTORS FBR07HA121TB-00	LLBF00ZTU021
F3601	FUSE 4A/125V 237 TYPE or	PAGJ20CAG402
	FUSE STC4A125V U/CT	PAGE20CW3402
FH3601	FUSE HOLDER MSF-015 or	XH01Z00LY001
	FUSE HOLDER FH-V-03078	XH01Z00DK001
FH3602	FUSE HOLDER MSF-015 or	XH01Z00LY001
	FUSE HOLDER FH-V-03078	XH01Z00DK001
PS3601 ⚠	THERMISTOR ZPB45BL7R0A	QNZZ45BL7R0A
RL3601	POWER RELAY SDT-S-112LMR or	MRNDC12QN014
	POWER RELAY SDT-SS-112DM or	MRNDC12QN008
	POWER RELAY RPEF-12-901	MRNDC12KB002
SA3601	SURGE ABSORBER JVR-07N471K or	NVQZVR07N471
	SURGE ABSORBER CNR-10D471K or	NVQZR10D471K
	SURGE ABSORBER PVR-07D471KB	NVQZ07D471KB
SG3601	GAP. FNR-G3.10D	FAZ000LD6005
W3601⚠	AC CORD WAC0172LTE01	WAC0172LTE01
⚠	AC CORD WAC0172AS006	WAC0172AS006
⚠	AC CORD LA-2366	WAC0172LW006

MUT CBA

Ref.No.	Description	Part No.
	MUT PCB (H.V. CBA + CRT CBA + Junction A CBA + Junction B CBA) Consists of the following	0ESA04465
	H.V. CBA (MUT-A)	---
	CRT CBA (MUT-B)	---
	Junction A CBA	---
	Junction B CBA	---

Junction A CBA

Ref.No.	Description	Part No.
	Junction A CBA (Including in MUT CBA) Consists of the following	---
CN503	CONNECTOR, 7P TUC-P07X-B1	JCTUS07TG001
CN504	CONNECTOR, 5P TUC-P05X-B1	JCTUS05TG001
CL503B	LEAD WIRE 7P 580MM	WX1TD370-002
CL504B	LEAD WIRE 5P 420MM	WX1TD370-001

Junction B CBA

Ref.No.	Description	Part No.
	Junction B CBA (Including in MUT CBA) Consists of the following	---
CN502	CONNECTOR, 6P TUC-P06X-B1	JCTUS06TG001
CL502B	LEAD WIRE 8P 650MM	WX1TD370-003

H.V. CBA

Ref.No.	Description	Part No.
	H.V. CBA (MUT-A) Consists of the following	---
	CAPACITORS	
C531⚠	P.P. CAP 0.56µF/200V J	CA2D564VC013
⚠	PP CAP. 0.56µF/250V J	CT2E564MS041
⚠	METALLIZED FILM CAP. 0.56µF/200V J	CT2D564F7001
C533⚠	PP CAP. 0.015µF/1.6KV J	CA3C153VC010
⚠	PP CAP. 0.015µF/1.6KV J	CT3C153MS039
⚠	METALLIZED FILM CAP. 0.015µF/1.6KV J	CT3C153F7002
⚠	PP CAP. 0.015µF/1.6KV J	CBH3CJQ00153
C534⚠	P.P. CAP. 0.022µF/200V J	CA2D223VC013
⚠	P.P. CAP. 0.022µF/200V K	CBP2DKD00223
⚠	P.P. CAP. 0.022µF/200V J	CT2D223KF011
C535	ELECTROLYTIC CAP. 4.7µF/50V M NP	622Z707
C536	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J TV	CMB1JJS00104
C537	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J TV	CMB1JJS00104
C538	ELECTROLYTIC CAP. 47µF/35V M or	CE1GMASDL470
	ELECTROLYTIC CAP. 47µF/35V M	CE1GMASTL470
C539	ELECTROLYTIC CAP. 470µF/35V M or	CE1GMASDL471
	ELECTROLYTIC CAP. 470µF/35V M	CE1GMASTL471
C542	CERAMIC CAP. LB 560PF/2KV or	CA3D561KG004
	CERAMIC CAP. BN 560PF/2KV or	CCD3DKA0B561
	CERAMIC CAP. 560PF/2KV	CA3D561PAN04
C551	CERAMIC CAP.(AX) CH J 1000PF/50V	CA1J102TU008
C552	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J TV	CMB1JJS00104
C553	ELECTROLYTIC CAP. 1µF/50V LL or	CE1JMASLH1R0
	ELECTROLYTIC CAP. 1µF/50V M LL or	CE1JMASLL1R0
	ELECTROLYTIC CAP. 1µF/50V M LL	CE1JMASLL010
C555	ELECTROLYTIC CAP. 47µF/35V M or	CE1GMASDL470
	ELECTROLYTIC CAP. 47µF/35V M	CE1GMASTL470
C556	ELECTROLYTIC CAP. 1000µF/25V M or	CE1EMZPDL102
	ELECTROLYTIC CAP. 1000µF/25V M or	CE1EMZZTL102
	ELECTROLYTIC CAP. 1000µF/25V M	CE1EMZPTL102
C558	CERAMIC CAP.(AX) B K 0.01µF/50V	CA1J103TU011
C559	ELECTROLYTIC CAP. 470µF/35V M or	CE1GMASDL471
	ELECTROLYTIC CAP. 470µF/35V M	CE1GMASTL471
C560	FILM CAP.(P) 0.056µF/50V J or	CMA1JJS00563
	FILM CAP.(P) 0.056µF/50V J or	CA1J563MS029
	FILM CAP.(P) 0.056µF/50V J TV	CMB1JJS00563
C573	FILM CAP.(P) 0.1µF/100V J	CMA2AJS00104
C574	ELECTROLYTIC CAP. 4.7µF/250V M or	CE2EMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/250V M	CE2EMASTL4R7
C575	CERAMIC CAP.(AX) B K 0.01µF/50V	CA1J103TU011
C577	FILM CAP.(P) 0.01µF/50V J or	CMA1JJS00103
	FILM CAP.(P) 0.01µF/50V J or	CA1J103MS029

Ref.No.	Description	Part No.
	FILM CAP.(P) 0.01µF/50V J TV	CMB1JJS00103
C578	ELECTROLYTIC CAP. 47µF/35V M or	CE1GMASDL470
	ELECTROLYTIC CAP. 47µF/35V M	CE1GMASTL470
C584⚠	ELECTROLYTIC CAP. 1µF/160V M	CE2CMASDL1R0
⚠	ELECTROLYTIC CAP. 1µF/160V M	CE2CMASTL010
⚠	ELECTROLYTIC CAP. 1µF/160V M	CE2CMASTL1R0
C590	CERAMIC CAP.(AX) B K 0.01µF/50V	CA1J103TU011
C591	ELECTROLYTIC CAP. 1µF/50V M H7 or	CE1JMASSL010
	ELECTROLYTIC CAP. 1µF/50V M H7	CE1JMASSL1R0
C592	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASDL101
	ELECTROLYTIC CAP. 100µF/35V M	CE1GMASTL101
C594	ELECTROLYTIC CAP. 10µF/160V M or	CE2CMASDL100
	ELECTROLYTIC CAP. 10µF/160V M	CE2CMASTL100
C595	CERAMIC CAP. LB 220PF/2KV or	CA3D221KG004
	CERAMIC CAP. BN J 220PF/2KV or	CCD3DKA0B221
	CERAMIC CAP. 220PF/2KV	CA3D221PAN04
C596	PP CAP. 0.0027µF/1.6KV J or	CA3C272VC010
	PP CAP. 0.0027µF/1.6KV J or	CT3C272MS039
	METALLIZED FILM CAP. 0.0027µF/1.6KV J	CT3C272KF015
	CONNCETORS	
CN502	CONNECTOR, 6P TUC-P06X-B1	JCTUS06TG001
CN503	CONNECTOR, 7P TUC-P07X-B1	JCTUS07TG001
CN504	CONNECTOR, 5P TUC-P05X-B1	JCTUS05TG001
CN571	CONNECTOR BASE, 5P TV-50P-05-V3 or	J3TVC05TG002
	CONNECTOR BASE, 5P RTB-1.5-5P	J3RTC05JG001
	DIODES	
D530	FAST RECOVERY DIODE ERC06-15 or	QDWZ0ERC0615
	DIODE ERD07-15L	QD4ZERD0715L
D531	FAST RECOVERY DIODE ERD38-06	QDQZ0ERD3806
D532	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D533	ZENER DIODE MTZJT-7715B	QDTB00MTZJ15
D552	DIODE 1N5397-B or	NDLZ001N5397
	RECTIFIER DIODE ERA15-02	AERA1502****
D572	DIODE FR104-B or	NDLZ000FR104
	RECTIFIER DIODE 10ELS2 or	QDQZ0010ELS2
	RECTIFIER DIODE ERA22-02	QDPZ0ERA2202
D584⚠	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
⚠	SWITCHING DIODE 1N4148	NDTZ001N4148
⚠	DIODE 1SS176TPA7	1SS176T
D585	ZENER DIODE MTZJT-775.1B	QDTB0MTZJ5R1
D591⚠	ZENER DIODE MTZJT-7736B	QDTB00MTZJ36
D593⚠	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
⚠	SWITCHING DIODE 1N4148	NDTZ001N4148
⚠	DIODE 1SS176TPA7	1SS176T
D595	ZENER DIODE MTZJT-7724B	QDTB00MTZJ24
D596	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D597⚠	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
⚠	SWITCHING DIODE 1N4148	NDTZ001N4148
⚠	DIODE 1SS176TPA7	1SS176T
D598	DIODE FR104-B or	NDLZ000FR104
	RECTIFIER DIODE 10ELS2 or	QDQZ0010ELS2
	RECTIFIER DIODE ERA22-02	QDPZ0ERA2202
	ICS	
IC551⚠	IC:VERTICAL OUTPUT LA78041	QSZBA0SSY006
⚠	IC:VERTICAL OUTPUT LA78045	QSZBA0SSY004
	COILS	

Ref.No.	Description	Part No.
L505	CHOKE COIL 47µH-K	LLBD00PKV007
L530⚠	LINEARITY COIL STS007	LLBD00ZY2002
⚠	LINEARITY COIL ELH5L6129N	LLBD00ZMS007
L531	LINEARITY COIL ST02LN or	LLBD00ZY2003
	CHOKE COIL ELC13B102L	LLC102KMS001
L572⚠	CHOKE COIL 47µH-K	LLBD00PKV007
	TRANSISTORS	
Q530⚠	TRANSISTOR 2SD1825	Q2SD1825****
⚠	TRANSISTOR KTD2059(O)	NQ400KTD2059
⚠	TRANSISTOR KTD2059(Y)	NQ4Y0KTD2059
Q531	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q532	TRANSISTOR 2SC2482 TPE6 or	QQSZ02SC2482
	TRANSISTOR 2SC3468(E)-AE or	QQSE02SC3468
	TRANSISTOR 2SC3468(D)-AE or	QQSD02SC3468
	TRANSISTOR 2SC2271(D)-AEMP or	2SC2271DZ
	TRANSISTOR 2SC2271(E)-AE	QQSE02SC2271
Q571⚠	TRANSISTOR 2SD2634	QQZZ02SD2634
⚠	TRANSISTOR 2SD2578	QQZZ02SD2578
Q591	TRANSISTOR 2SC1627Y-TPE2	QQSY02SC1627
Q592⚠	TRANSISTOR 2SC2785(J)	QQSJ02SC2785
⚠	TRANSISTOR 2SC2785(H)	QQSH02SC2785
⚠	TRANSISTOR 2SC2785(F)	QQSF02SC2785
⚠	TRANSISTOR 2SC536NF-NPA-AT	QQSFC536NNPA
⚠	TRANSISTOR 2SC536NG-NPA-AT	QQSGC536NNPA
⚠	TRANSISTOR KTC3199(GR)	NQS10KTC3199
⚠	TRANSISTOR KTC3198GR TO-92	NQS40KTC3198
⚠	TRANSISTOR 2SC3331(T)	QSC3331TNPAA
⚠	TRANSISTOR 2SC3331(U)	QSC3331UNPAA
⚠	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
	RESISTORS	
R529	CARBON RES. 1/4W J 680 Ω or	RCX4JATZ0681
	CARBON RES. 1/6W J 680 Ω	RCX6JATZ0681
R530⚠	METAL OXIDE FILM RES. 1W J 1k Ω	RN01102DP003
⚠	METAL OXIDE FILM RES. 1W J 1k Ω	RN01102ZU001
⚠	METAL OXIDE FILM RES. 1W J 1k Ω	RN01102KE010
R531⚠	METAL OXIDE FILM RES. 2W J 8.2 Ω	RN028R2DP004
⚠	METAL OXIDE FILM RES. 2W J 8.2 Ω	RN028R2ZU001
⚠	METAL OXIDE FILM RES. 2W J 8.2 Ω	RN028R2KE010
R532	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R533	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R534	CARBON RES. 1/4W J 470 Ω or	RCX4JATZ0471
	CARBON RES. 1/6W J 470 Ω	RCX6JATZ0471
R535	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R536	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R537	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R538	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R539	CARBON RES. 1/4W J 150k Ω	RCX4JATZ0154
R540	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R544⚠	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R545	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R546	CARBON RES. 1/4W J 27k Ω	RCX4JATZ0273
R547	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R549	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102

Ref.No.	Description	Part No.
R550	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R551	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R552	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R556	CARBON RES. 1/4W J 3.3 Ω or	RCX4JATZ03R3
	CARBON RES. 1/6W J 3.3 Ω	RCX6JATZ03R3
R557	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
R558	CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683
R559	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R560	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R561	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R562	CARBON RES. 1/4W J 3.3 Ω or	RCX4JATZ03R3
	CARBON RES. 1/6W J 3.3 Ω	RCX6JATZ03R3
R563	CARBON RES. 1/4W J 3.3 Ω or	RCX4JATZ03R3
	CARBON RES. 1/6W J 3.3 Ω	RCX6JATZ03R3
R564	CARBON RES. 1/4W J 3.3 Ω or	RCX4JATZ03R3
	CARBON RES. 1/6W J 3.3 Ω	RCX6JATZ03R3
R565⚠	CARBON RES. 1/2W J 2.7 Ω	RCX2JZQZ02R7
⚠	CARBON RES. 1/2W J 2.7 Ω	RCX22R7KA013
⚠	CARBON RES. 1/2W J 2.7 Ω	RCX2JZPZ02R7
R566⚠	CARBON RES. 1/2W J 2.7 Ω	RCX2JZQZ02R7
⚠	CARBON RES. 1/2W J 2.7 Ω	RCX22R7KA013
⚠	CARBON RES. 1/2W J 2.7 Ω	RCX2JZPZ02R7
R572	CARBON RES. 1/4W J 680 Ω or	RCX4JATZ0681
	CARBON RES. 1/6W J 680 Ω	RCX6JATZ0681
R573	CARBON RES. 1/4W J 680 Ω or	RCX4JATZ0681
	CARBON RES. 1/6W J 680 Ω	RCX6JATZ0681
R575	PCB JUMPER D0.6-P5.0	JW5.0T
R576	CARBON RES. 1/4W J 1k Ω or	RCX4JATZ0102
	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R577	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R579	CARBON RES. 1/4W J 470 Ω or	RCX4JATZ0471
	CARBON RES. 1/6W J 470 Ω	RCX6JATZ0471
R580⚠	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
⚠	CARBON RES. 1/6W J 22 Ω	RCX6JATZ0220
R581	PCB JUMPER D0.6-P5.0	JW5.0T
R583⚠	METAL OXIDE FILM RES. 3W J 8.2 Ω	RN038R2ZU001
⚠	METAL RESISTOR 3W J 8.2 Ω	RN038R2UB503
⚠	FIXED METAL OXIDE FILM RE 3W J 8.2 Ω	RN038R2DP005
R584⚠	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
⚠	CARBON RES. 1/6W J 1k Ω	RCX6JATZ0102
R585	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R587⚠	CARBON RES. 1/4W J 82k Ω	RCX4JATZ0823
R588	CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683
R589	CARBON RES. 1/4W J 22 Ω or	RCX4JATZ0220
	CARBON RES. 1/6W J 22 Ω	RCX6JATZ0220
R591⚠	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R592⚠	CARBON RES. 1/4W J 180k Ω	RCX4JATZ0184
R593	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R594	CARBON RES. 1/4W J 68k Ω	RCX4JATZ0683
R596	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R597	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R598⚠	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R599⚠	CARBON RES. 1/4W J 5.6k Ω	RCX4JATZ0562
MISCELLANEOUS		
BC571	PCB JUMPER D0.6-P5.0	JW5.0T
CL502A	LEAD WIRE 8P 650MM	WX1TD370-003
CL503A	LEAD WIRE 7P 580MM	WX1TD370-002
DB1	H/V PCB HOLDER T7240JL	0EM201496
DB2	27V H/V HEATSINK(PFW)ASSYTD370UA	0EM406714
DB5	27V H/V HEATSINK(PFX)ASSYTD370UA	0EM406715

Ref.No.	Description	Part No.
DL1	SCREW, P-TIGHT 3X10 BIND HEAD	GBUP3100
DL2	B-TITE SCREW 3X8 BIND + CHROME or	GBMB3080
	B-TITE SCREW 3X8 BIND + CHROME	GBMB3080
LD571	WIRE 070/RED/AWG20	WX3201CAFF07
T571⚠	FLYBACK TRANS BSC25-2096S	LTF00CPS2028
T572	HORIZONTAL DRAIVE TRANS STA5003**	LTH00CPY2003
VR530	CARBON P.O.T. 30k Ω B or	VRCB303KA012
	CARBON P.O.T. 30k Ω B	VRCB303HH002
VR531	CARBON P.O.T. 5k Ω B or	VRCB502KA012
	CARBON P.O.T. 5k Ω B	VRCB502HH002

CRT CBA

Ref.No.	Description	Part No.
	CRT CBA (MUT-B) Consists of the following	---------
CAPACITORS		
C503	ELECTROLYTIC CAP. 47µF/35V M or	CE1GMASDL470
	ELECTROLYTIC CAP. 47µF/35V M	CE1GMASTL470
C506	CERAMIC CAP.(AX) B K 470PF/50V	CCA1JKT0B471
C508	CERAMIC CAP.(AX) B K 470PF/50V	CCA1JKT0B471
C510	CERAMIC CAP.(AX) B K 560PF/50V	CCA1JKT0B561
C511	CERAMIC CAP. B K 1000PF/2KV or	CCD3DKP0B102
	CERAMIC CAP. B K 1000PF/2KV or	CA3D102MR030
	CERAMIC CAP. B K 1000PF/2KV	CCD3DKD0B102
C512	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL010
	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASTL010
	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASTL1R0
CONNCETORS		
CN501	PIN CONNECTOR 005P-5100 or	JTEA001TG001
	CONNECTOR PIN, 1P LV or	1700576
	CONNECTOR PIN, 1P RT-01N-2.3A	1730688
DIODES		
D500	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D501	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D502	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
TRANSISTORS		
Q501	TRANSISTOR 2SC3619 or	QQ9Z02SC3619
	TRANSISTOR KTC3229	NQ5Z0KTC3229
Q502	TRANSISTOR 2SC3619 or	QQ9Z02SC3619
	TRANSISTOR KTC3229	NQ5Z0KTC3229
Q503	TRANSISTOR 2SC3619 or	QQ9Z02SC3619
	TRANSISTOR KTC3229	NQ5Z0KTC3229
RESISTORS		
R501	PCB JUMPER D0.6-P5.0	JW5.0T
R502	PCB JUMPER D0.6-P5.0	JW5.0T
R503	PCB JUMPER D0.6-P5.0	JW5.0T
R504A	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R504B	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R506	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R507⚠	FIXED METAL OXIDE FILM RES. 3W J 10k Ω	RN03103KE008
⚠	METAL RESISTOR 3W J 10k Ω	RN03103ZU001

Ref.No.	Description	Part No.
⚠	METAL RES. 3W J 10k Ω	RN03103UB503
⚠	FIXED METAL OXIDE FILM RES. 3W J 10k Ω	RN03103DP005
R509	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
R510	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R511	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R512	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R513A	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R513B	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R514	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R515⚠	FIXED METAL OXIDE FILM RES. 3W J 10k Ω	RN03103KE008
⚠	METAL RESISTOR 3W J 10k Ω	RN03103ZU001
⚠	METAL RES. 3W J 10k Ω	RN03103UB503
⚠	FIXED METAL OXIDE FILM RES. 3W J 10k Ω	RN03103DP005
R517	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
R521A	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R521B	CARBON RES. 1/4W J 1.5k Ω	RCX4JATZ0152
R522	CARBON RES. 1/4W J 100 Ω or	RCX4JATZ0101
	CARBON RES. 1/6W J 100 Ω	RCX6JATZ0101
R523⚠	FIXED METAL OXIDE FILM RES. 3W J 10k Ω	RN03103KE008
⚠	METAL RESISTOR 3W J 10k Ω	RN03103ZU001
⚠	METAL RES. 3W J 10k Ω	RN03103UB503
⚠	FIXED METAL OXIDE FILM RES. 3W J 10k Ω	RN03103DP005
R525	CARBON RES. 1/4W J 390 Ω or	RCX4JATZ0391
	CARBON RES. 1/6W J 390 Ω	RCX6JATZ0391
MISCELLANEOUS		
JK502⚠	CRT SOCKET ISHS40ST	JSCC290PK006
⚠	CRT SOCKET HPS0521-012212	JSCC290HD012
CL501A	LEAD WIRE 3P 400MM	WX1T7100-101
CL504A	LEAD WIRE 5P 420MM	WX1TD370-001

MFI (EMI) CBA

Ref.No.	Description	Part No.
	MFI CBA Consists of the following	0ESA04388
CAPACITORS		
C416	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C425	ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C427	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C428	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C429	ELECTROLYTIC CAP. 470µF/6.3V M or	CE0KMASDL471
	ELECTROLYTIC CAP. 470µF/6.3V M	CE0KMASTL471
C430	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C431	CERAMIC CAP.(AX) B K 1000PF/50V	CCA1JKT0B102
C432	ELECTROLYTIC CAP. 220µF/6.3V M or	CE0KMASDL221
	ELECTROLYTIC CAP. 220µF/6.3V M	CE0KMASTL221
C434	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C435	ELECTROLYTIC CAP. 220µF/16V M or	CE1CMASDL221
	ELECTROLYTIC CAP. 220µF/16V M	CE1CMASTL221
C436	ELECTROLYTIC CAP. 220µF/6.3V M or	CE0KMASDL221
	ELECTROLYTIC CAP. 220µF/6.3V M	CE0KMASTL221
CONNCETORS		
CN401	CONNECTOR 10P TKC-A10X-B1	JCTKC10TG003
CN402	CONNECTOR 10P TKC-A10X-B1	JCTKC10TG003
CN403	CONNECTOR 10P TKC-A10X-B1	JCTKC10TG003
CN404	FMN CONNECTOR, TOP 24P 24FMN-BTK	JCFNG24JG001
CN405	FMN CONNECTOR, TOP 15P 15FMN-BTK	JCFNG15JG001
DIODES		
D401	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D402	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D403	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D404	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D405	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D406	ZENER DIODE MTZJT-773.9A	QDTA0MTZJ3R9
D407	SCHOTTKY BARRIER DIODE 11EQS04 or	QD4Z011EQS04
	SCHOTTKY BARRIER DIODE ERA81-004	QDPZERA81004
D408	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
D409	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	SWITCHING DIODE 1N4148 or	NDTZ001N4148
	DIODE 1SS176TPA7	1SS176T
ICS		
IC401	3.3V REGULATOR(1A) BA033ST-V5	QSZBA0SRM013
IC402	IC REGULATOR BA00AST-V5	QSZBA0SRM015
COILS		
L410	PCB JUMPER D0.6-P5.0	JW5.0T
L412	CHOKE COIL 47µH-K	LLBD00PKV007
L413	CHOKE COIL 47µH-K	LLBD00PKV007
L414	INDUCTOR 47µH-J-26T or	LLAXJATTU470
	INDUCTOR 47µH-K-26T	LLAXKDTKA470
L415	INDUCTOR 0.47µH-J-26T or	LLAXJATTUR47
	INDUCTOR 0.47µH-M-26T	LLAXMDTKAR47
L416	PCB JUMPER D0.6-P5.0	JW5.0T
L417	CHOKE COIL 47µH-K	LLBD00PKV007
L419	PCB JUMPER D0.6-P5.0	JW5.0T
L421	PCB JUMPER D0.6-P5.0	JW5.0T
L422	CHOKE COIL 47µH-K	LLBD00PKV007
L426	PCB JUMPER D0.6-P5.0	JW5.0T
TRANSISTORS		
Q401	TRANSISTOR 2SC2120-O-TPE2 or	QQS002SC2120
	TRANSISTOR 2SC2120-Y(TPE2)	QQSY02SC2120
Q402	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q403	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA

Ref.No.	Description	Part No.
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q404	TRANSISTOR KTA1267(GR) or	NQS10KTA1267
	TRANSISTOR KTA1266(GR) or	NQS40KTA1266
	TRANSISTOR 2SA1318(T)-AANP or	2SA1318TZ
	TRANSISTOR 2SA1318(U)-AANP or	2SA1318UZ
	TRANSISTOR 2SA1015-GR(TPE2) or	QQS102SA1015
	TRANSISTOR 2SA1175(F) or	QQSF02SA1175
	TRANSISTOR 2SA1175(E)	QQSE02SA1175
Q405	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
Q406	TRANSISTOR 2SC2785(J) or	QQSJ02SC2785
	TRANSISTOR 2SC2785(H) or	QQSH02SC2785
	TRANSISTOR 2SC2785(F) or	QQSF02SC2785
	TRANSISTOR 2SC536NF-NPA-AT or	QQSFC536NNPA
	TRANSISTOR 2SC536NG-NPA-AT or	QQSGC536NNPA
	TRANSISTOR KTC3199(GR) or	NQS10KTC3199
	TRANSISTOR KTC3198GR TO-92 or	NQS40KTC3198
	TRANSISTOR 2SC3331(T) or	QSC3331TNPAA
	TRANSISTOR 2SC3331(U) or	QSC3331UNPAA
	TRANSISTOR 2SC1815GR-TPE2	2SC1815GRTPE
	RESISTORS	
R405	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R406	CARBON RES. 1/4W G 4.7k Ω	RCX4GATZ0472
R407	CARBON RES. 1/6W G 4.1k Ω	RCX6GATZ0412
R408	CARBON RES. 1/4W J 68 Ω or	RCX4JATZ0680
	CARBON RES. 1/6W J 68 Ω	RCX6JATZ0680
R409	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R413	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R414	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R415	CARBON RES. 1/4W J 8.2k Ω	RCX4JATZ0822
R416	CARBON RES. 1/4W J 18k Ω	RCX4JATZ0183
R419	PCB JUMPER D0.6-P15.0	JW15.0T
R420	CARBON RES. 1/4W J 150 Ω or	RCX4JATZ0151
	CARBON RES. 1/6W J 150 Ω	RCX6JATZ0151
R421	CARBON RES. 1/4W J 180 Ω or	RCX4JATZ0181
	CARBON RES. 1/6W J 180 Ω	RCX6JATZ0181
R422	CARBON RES. 1/4W J 150 Ω or	RCX4JATZ0151
	CARBON RES. 1/6W J 150 Ω	RCX6JATZ0151
R423	CARBON RES. 1/4W J 15k Ω	RCX4JATZ0153
R424	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R425	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R426	CARBON RES. 1/4W J 330 Ω or	RCX4JATZ0331
	CARBON RES. 1/6W J 330 Ω	RCX6JATZ0331
R427	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R428	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R429	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472

Ref.No.	Description	Part No.
R430	CARBON RES. 1/4W J 220 Ω or	RCX4JATZ0221
	CARBON RES. 1/6W J 220 Ω	RCX6JATZ0221
R431	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R432	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R439	PCB JUMPER D0.6-P5.0	JW5.0T
R442	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R443	CARBON RES. 1/4W 2.2 Ω J or	RCX4JATZ02R2
	CARBON RES. 1/6W J 2.2 Ω	RCX6JATZ02R2
R446	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R447	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R448	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R451	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R452	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
	MISCELLANEOUS	
TB9	13V FILTER HEAT SINK PEV TD100UA	0EM405957B
TL6	B-TITE SCREW 3X8 BIND + CHROME	GBMB3080

DECK PARTS LIST

Ref. No.	Description	Part No.
B2	CYLINDER ASSEMBLY MK10 NTSC 4HD HIFI or	N1268CYL
	CYLINDER ASSEMBLY(V) MK10 NTSC 4HD HIFI	N1269CYL
B3	LOADING MOTOR ASSEMBLY MK10	0VSA11013
B8	PULLEY ASSEMBLY MK10	0VSA11021
B9	MOVING GUIDE S PREPARATION MK10	0VSA11002
B10	MOVING GUIDE T PREPARATION MK10	0VSA11004
B11	LOADING ARM T ASSEMBLY MK10	0VSA11001
B12	LOADING ARM S ASSEMBLY MK10	0VSA11019
B27	TENSION LEVER SUB ASSEMBLY MK10	0VSA11016
B31	AC HEAD ASSEMBLY MK10(TVCR)	0VSA11717
B35	TAPE GUIDE ASSEMBLY MK10	0VSA11007
B37	CAPSTAN MOTOR 288/CCM002	N9650CML
B52	CAP BELT MK10	0VM411138
B73	FE HEAD(MK10) HVFHP0044A or	DHVEC01AL006
	FE HEAD ASSEMBLY MK10 or	N9741FEL
	FE HEAD(MK10) MH-131SF10 or	DHVEC01Z0004
	FE HEAD(MK9) MH-131SF9	DHVEC01Z0002
B74	PRISM MK10	0VM202870
B86	F BRAKE ASSEMBLY MK10	0VSA11020
B121	WORM MK10	0VM411094
B122	WORM SHAFT MK10 or	0VM411650
	WORM SHAFT(C) MK10	0VM411651
B126	PULLEY MK10	0VM411093
B133	IDLER ASSEMBLY(90) MK10	0VSA12063
B148	TG CAP MK6	0VM407664C
B300	C DRIVE LEVER R MK10	0VM304409
B303	F DOOR OPENER A MK10	0VM304553
B313	C.DRIVE SPRING MK10	0VM411111
B319	CASSETTE SPRING MK9	0VM410571
B354	SLIDER R MK10	0VM100913
B355	SLIDER L MK10	0VM202867
B401	VH CONNECTOR 9AJ MK10 JST	0VM304543
B402	VH CONNECTOR 9BJ MK10 JST	0VM411466
B403	ACH CONNECTOR AN(9P) MK9	0VM303991
B404	ACH CONNECTOR 9B MK10	0VM411471
B410	PINCH ARM(A) ASSEMBLY MK10	0VSA10995
B411	PINCH SPRING MK10	0VM411092
B414	M BRAKE S ASSEMBLY MK10	0VSA10999
B416	M BRAKE T ASSEMBLY MK10	0VSA11000
B417	TENSION SPG B MK10	0VM411819
B425	LOCK LEVER SPRING MK10	0VM411110
B426	KICK PULLEY MK10	0VM411095
B472	SLIDER R ASSEMBLY MK10	0VSA11288
B482	CASSETTE PLATE MK10	0VM202869
B483	LOCK LEVER MK10	0VM411109D
B487	BAND BRAKE MK10	0VM304416B
B488	MODE LEVER MK10	0VM100918H
B491	CAM GEAR(A) MK10	0VM100914
B492	MODE GEAR MK10	0VM304402J
B494	DOOR OPENER B MK10	0VM304398
B499	T LEVER HOLDER MK10	0VM304419
B501	WORM HOLDER MK10	0VM304397
B502	CAM GEAR(B) MK10	0VM304403
B505	P.S.W F 6*2.55*0.5	0VM402629A
B507	REEL WASHER MK9 5*2.1*0.5	0VM410058
B508	S BRAKE SPRING MK10	0VM411121

Ref. No.	Description	Part No.
B510	P.S.W F 6*2.55*0.5	0VM402629A
B512	REEL WASHER MK9 5*2.1*0.5	0VM410058
B513	PSCW(752605) MK10	0VM411516
B514	SCREW RACK MK10	0VM411535
B516	REEL WASHER MK9 5*2.1*0.5	0VM410058
B518	P.S.W CUT 1.6X4.0X0.5T	0VM408485A
B520	T BRAKE SPRING MK10	0VM411123
B521	SOFT SPRING MK10	0VM411122
B522	TG POST ASSEMBLY MK10	0VSA11012
B523	FIRST POST ASSEMBLY MK9	0VSA10062
B524	MOTOR PCB ASSEMBLY(M) MK10	0VSA11194
B525	LDG BELT MK10	0VM411097
B550	TAPE GUIDE ARM SPRING MK6	0VM407704E
B551	FF ARM MK10	0VM304424
B552	ADJUST SPRING MK10	0VM411697
B555	RACK ASSEMBLY MK10	0VSA11009
B556	STANDARD POST MK9	0VM410055C
B557	MOTOR PULLEY U5	0VM403205A
B558	LOADING MOTOR M31E-1 R14 7215	MMDZB12MM001
B559	CLUTCH ASSEMBLY MK10	0VSA11018
B560	KICK SPRING MK10	0VM411475A
B561	F DOOR SPRING MK10	0VM411430
B562	C DRIVE LEVER L MK10	0VM304408
B563	SLIDER SHAFT MK10	0VM411112
B564	M GEAR MK10	0VM411136E
B565	SENSOR GEAR MK10	0VM411134
B566	FF ARM HOLDER MK10	0VM304448
B567	PINCH ARM(B) MK10	0VM304396
B568	BT ARM MK10	0VM304417H
B569	CAM HOLDER MK10	0VM304404G
B570	CAM RACK SPG MK10	0VM411102
B571	P.S.W F 6*2.55*0.5	0VM402629A
B572	P.S.W CUT 1.6X4.0X0.5T	0VM408485A
B573	REEL S MK10	0VM202871
B574	REEL T MK10	0VM202872
B576	SLIDE HOLDER(S) MK10	0VM411728
B577	SLIDE HOLDER(T) MK10	0VM411729
L1051	SCREW, B-TIGHT M2.6X6 PAN HEAD+	GPMB9060
L1053	SCREW, S-TIGHT M2.6X8 WASHER HEAD+	GCMS9080
L1151	SCREW, SEMS M2.6X4 PAN +	CPM39040
L1191	SCREW, S-TIGHT M2.6X8 WASHER HEAD+	GCMS9080
L1341	SCREW, P-TIGHT M2.6X6 BIND HEAD+	GBMP9060
L1406	AC HEAD SCREW MK9	0VM410964
L1450	SCREW, SEMS M2.6X5 PAN HEAD+	CPM39050
L1460	SCREW M2.6X6 PAN HEAD +	SPM39060
L1461	SCREW, P-TIGHT M2.6X6 WASHER HEAD+	GCMP9060
L1463	SCREW, S-TIGHT M2.6X4 BIND HEAD+	GBMS9040
L1466	SCREW, S-TIGHT M2.6X6 BIND HEAD+	GBMS9060
L1469	SCREW, S-TIGHT M2.6X6 PAN HEAD +	GPMS9060
L1471	SCREW, S-TIGHT M2.6X6 BIND HEAD+	GBMS9060
L1482	SCREW, B-TIGHT M2.3X4 BIND HEAD+	GBMBY040
L1483	SCREW, P-TIGHT M2.6X8 BIND HEAD+ or	GBMP9080
	SCREW PRISM MK7 or	0VM409038

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